



TC-K6 (AEP, E model)

TC-K6 (Panel: Silver)

AEP Model

E Model

US Model

Canadian Model

TC-K6B (Panel: Black)

AEP Model

STEREO CASSETTE DECK

SPECIFICATIONS

GENERAL

Power Requirements: 120V ac, 60 Hz (US, Canadian model)
110, 120, 220, 240V ac, 50/60 Hz
(AEP, E model)

Power Consumption: 17W ac (US, Canadian model)
19W ac (AEP, E model)

Dimensions: (US, Canadian model)
Approx. 460 (w) x 170 (h) x 310 (d) mm
18 1/8 (w) x 6 3/4 (h) x 12 1/4 (d) inches
(AEP, E model)
Approx. 430 (w) x 170 (h) x 310 (d) mm
17 (w) x 6 3/4 (h) x 12 1/4 (d) inches
including projecting parts and controls

Weight: 9.5 kg, 20 lb 15 oz (US, Canadian model)
8.5 kg, 18 lb 12 oz (AEP, E model)

TAPE RECORDER SECTION

Track: 4-track 2-channel stereo

Fast Forward
Rewind Time: Approx. 90 seconds with Sony cassette C-60

'Dolby' and the double-D symbol are the trade marks of
Dolby Laboratory Inc. Noise reduction system manufactured
under license from Dolby Laboratory Inc.

SAFETY-RELATED COMPONENT WARNING

COMPONENTS IDENTIFIED BY SHADING AND A
MARK ON THE SCHEMATIC DIAGRAMS, EXPLODED
VIEWS AND IN THE PARTS LIST ARE CRITICAL TO
SAFE OPERATION. REPLACE THESE COMPONENTS
WITH SONY PARTS WHOSE PART NUMBERS APPEAR
AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS
PUBLISHED BY SONY

Frequency Response: DOLBY NR OFF

With Ferri-Chrome cassette
20-18,000 Hz (NAB)
30-16,000 Hz ± 3 dB (NAB)
30-16,000 Hz (DIN)

With chromium dioxide cassette
20-17,000 Hz (NAB)
30-15,000 Hz ± 3 dB (NAB)
30-15,000 Hz (DIN)

With standard cassette
20-15,000 Hz (NAB)
30-15,000 Hz (DIN)

Wow and Flutter: 0.05% WRMS (NAB)
±0.14% (DIN)

SN Ratio: DOLBY NR OFF

With Ferri-Chrome cassette
59 dB at peak level (NAB)
57 dB (DIN, 1975 rev.)

With chromium dioxide cassette
55 dB at peak level (NAB)

DOLBY NR ON

Improved by 5 dB at 1 kHz,
10 dB above 5 kHz

— Continued on page 2 —

SONY
SERVICE MANUAL

TC-K6/K6B

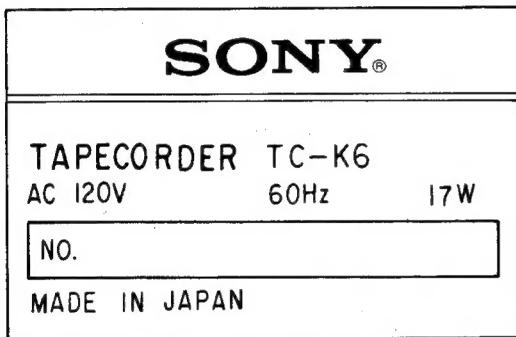
Total Harmonic Distortion:	1.3%	Outputs:	VARIABLE LINE OUTPUT (phono jacks) 2
Record Bias Frequency:	105 kHz		output level 0.775V (0 dB) at load impedance 100 kΩ
Inputs:	MIC (phone jacks) 2 sensitivity 0.25 mV (-70 dB) for a low-impedance microphone		with LINE OUT level control at "10" suitable load impedance more than 10 kΩ
	LINE IN (phono jacks) 2 sensitivity 77.5 mV (-20 dB) input impedance 100 kΩ		FIXED LINE OUTPUT (phono jacks) . 2 output level 0.435V (-5 dB) at load impedance 100 kΩ
			suitable load impedance more than 10 kΩ
		HEADPHONES 1 output level -20 to -50 dB at load impedance 8Ω
		REC/PB Jack (DIN):	Input impedance less than 10 kΩ Output impedance less than 10 kΩ

0 dB = 0.775V

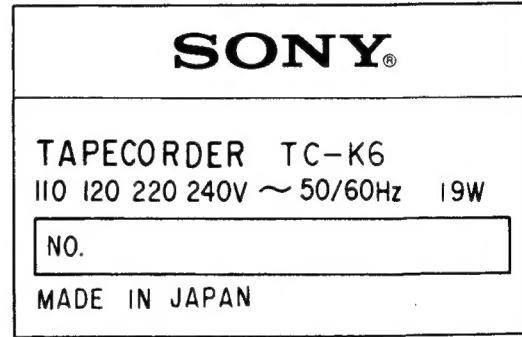
MODEL IDENTIFICATIONS

Specification Label

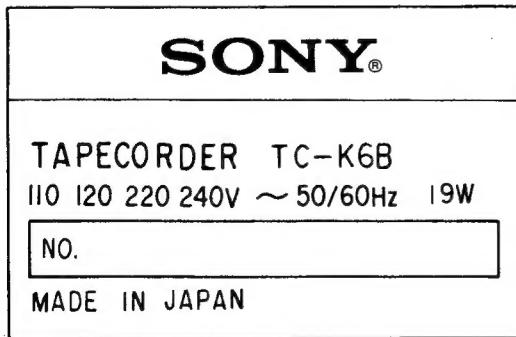
TC-K6: US, Canadian model



TC-K6: AEP, E model

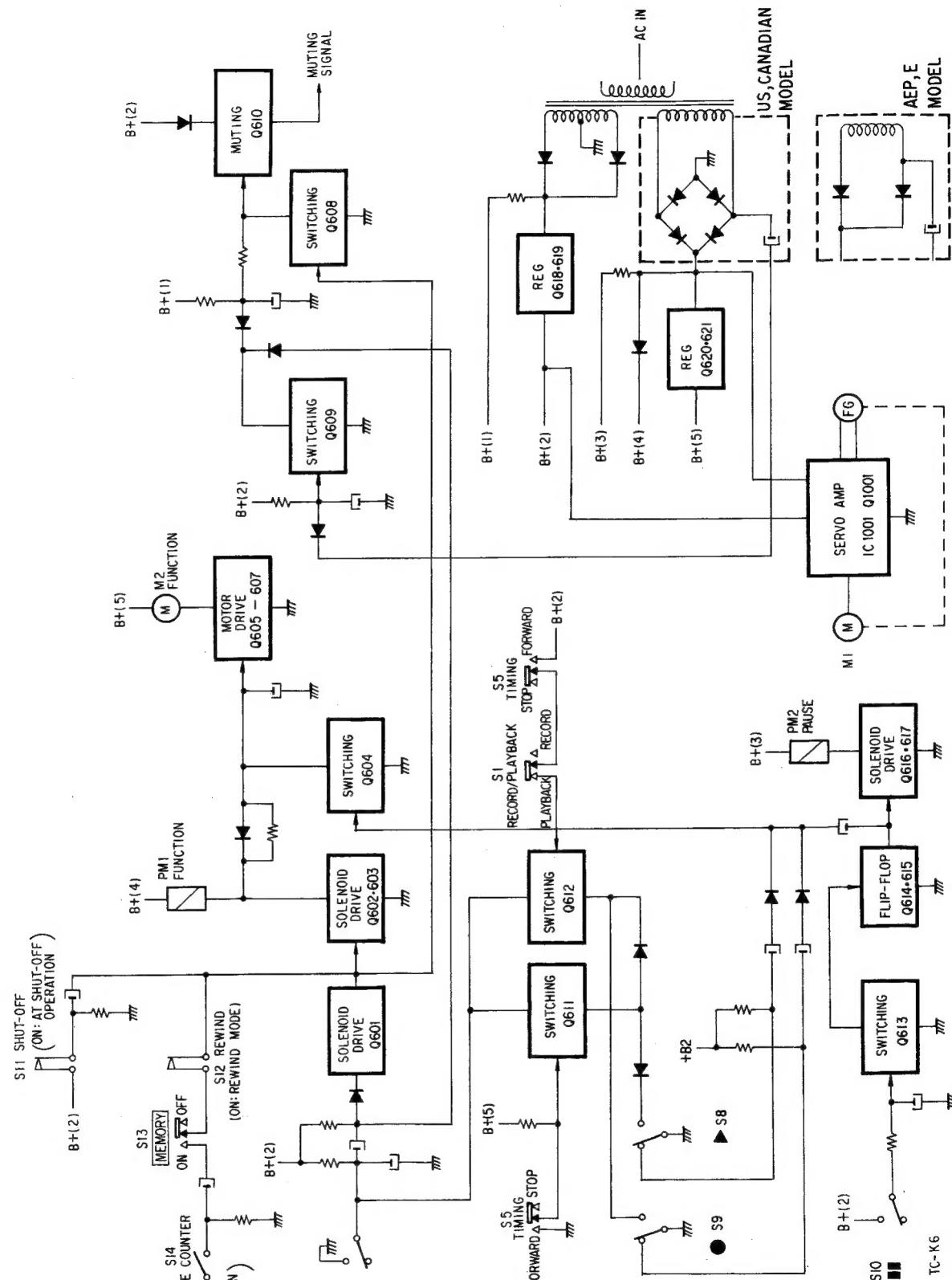


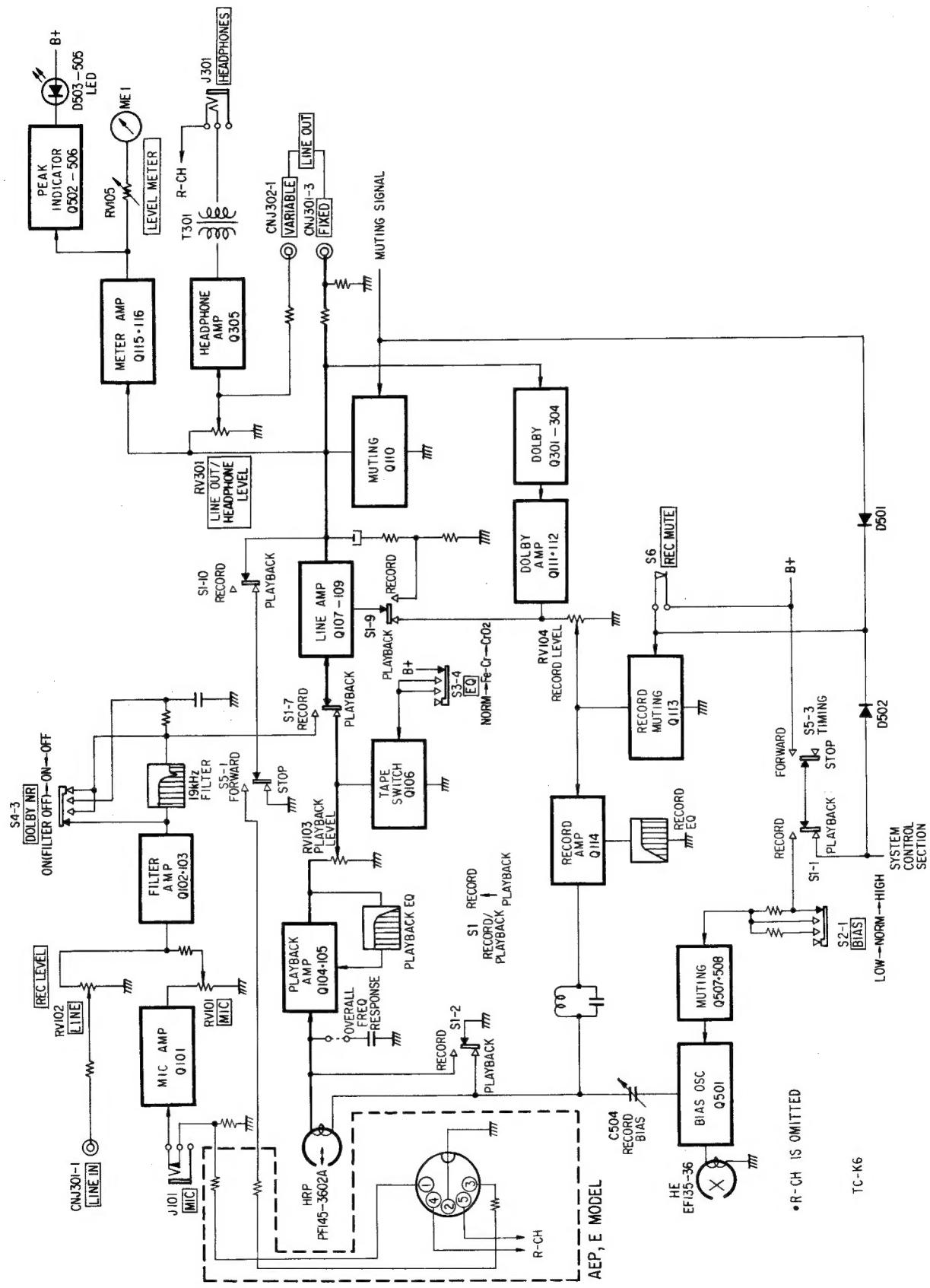
TC-K6B: AEP model



SECTION 1

BLOCK DIAGRAMS





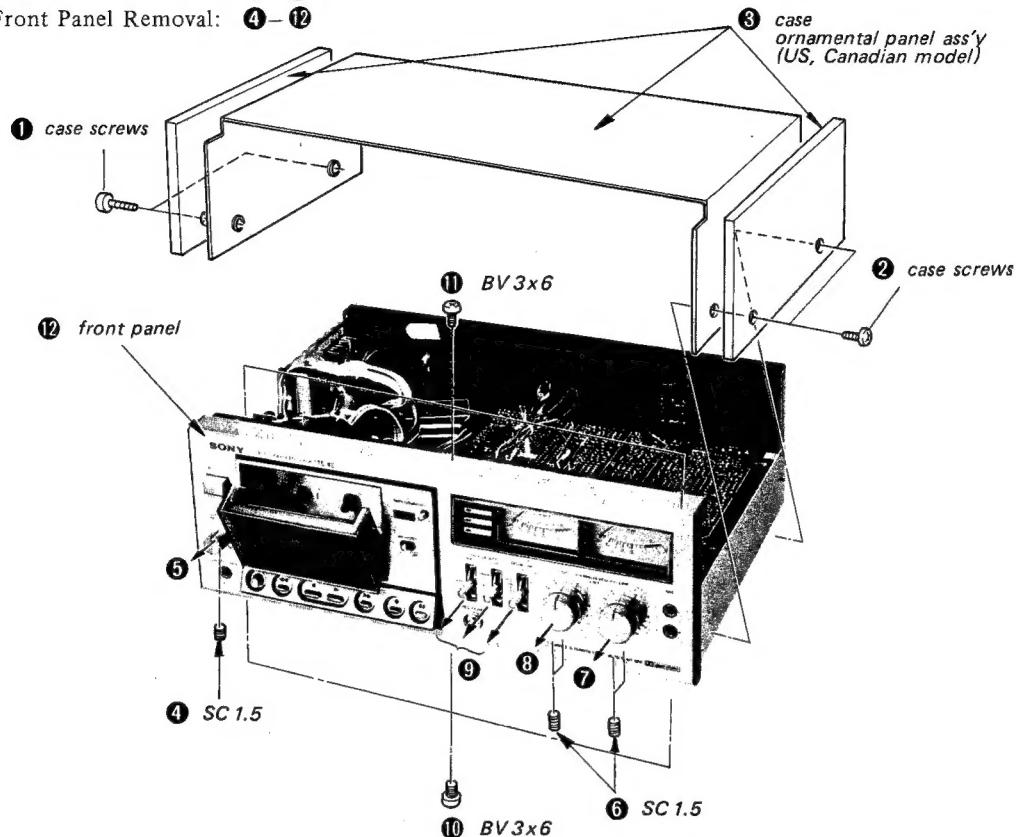
SECTION 2

DISASSEMBLY

Note: Remove the parts in the numerical order.

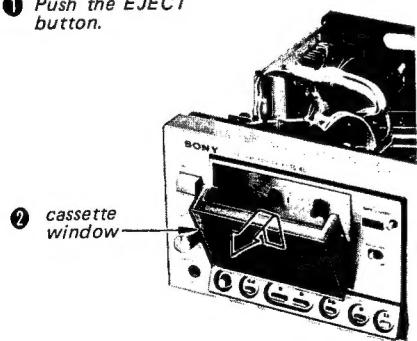
CASE AND FRONT PANEL REMOVAL

Case Removal: ①-③
Front Panel Removal: ④-⑫

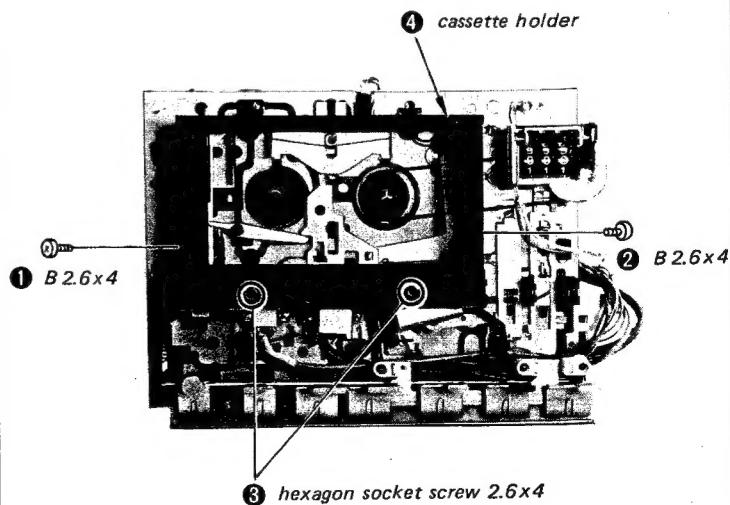


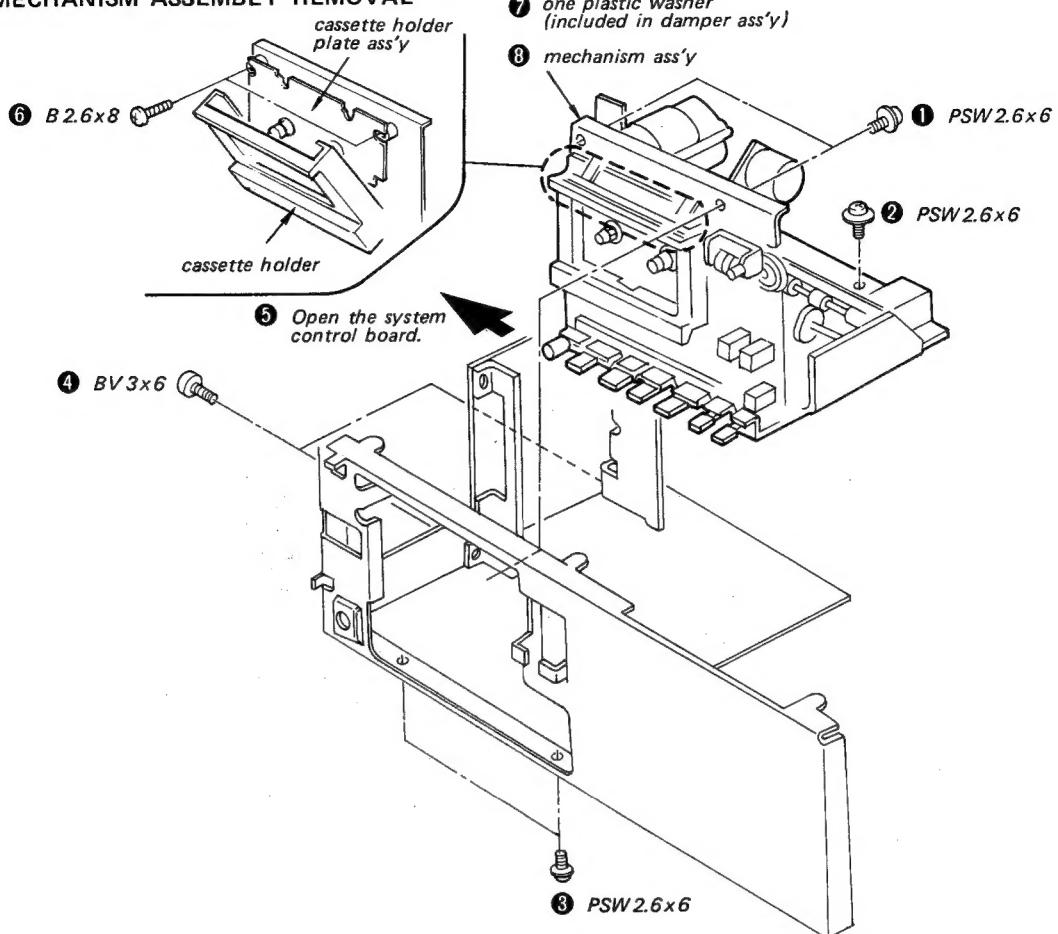
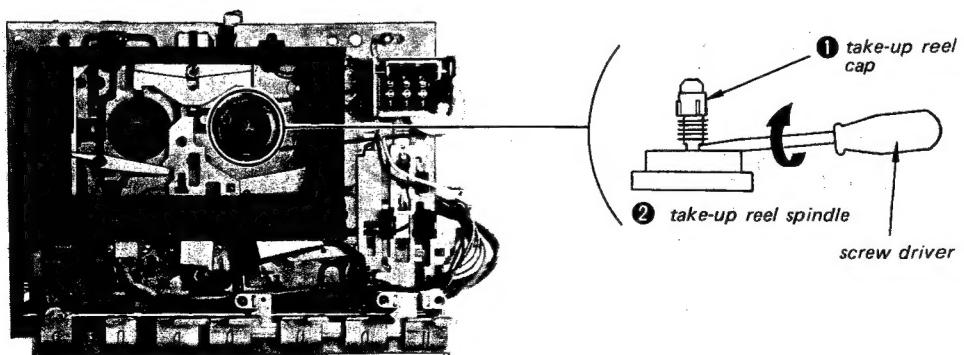
CASSETTE WINDOW REMOVAL

① Push the EJECT button.



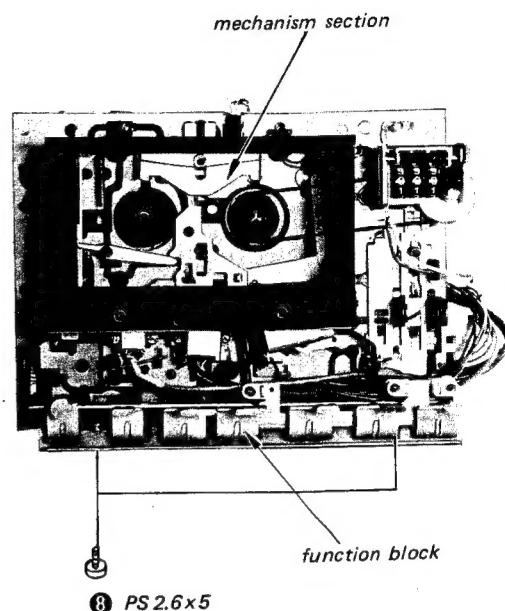
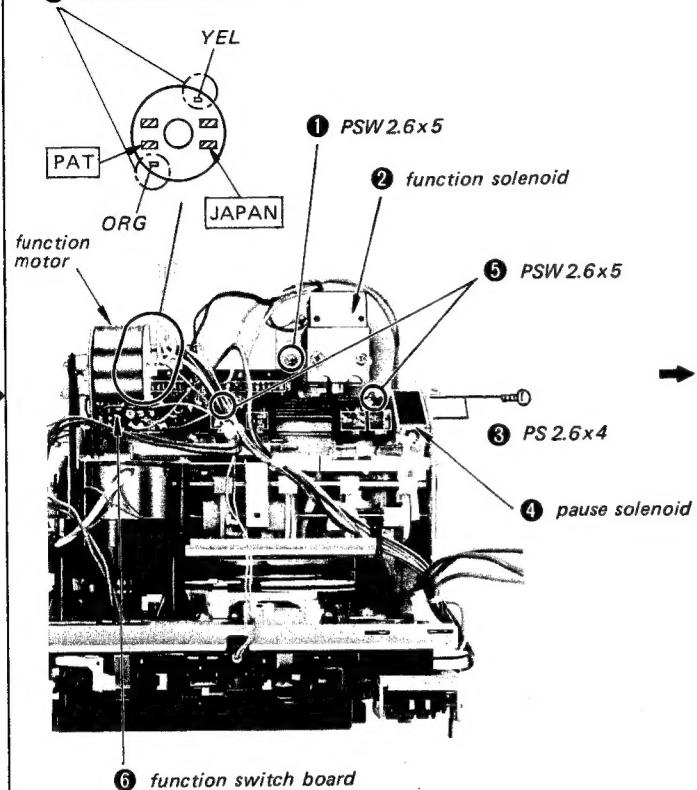
CASSETTE HOLDER REMOVAL



MECHANISM ASSEMBLY REMOVAL**TAKE-UP REEL SPINDLE REMOVAL**

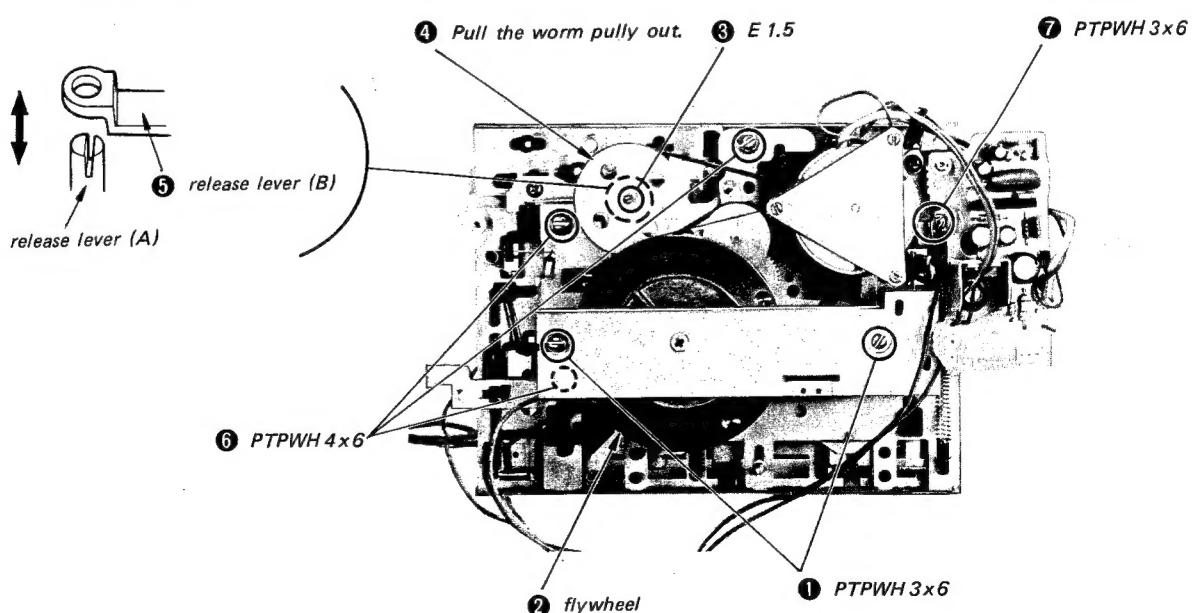
SEPARATION OF MECHANISM SECTION AND FUNCTION BLOCK

7 disconnect two lead wires



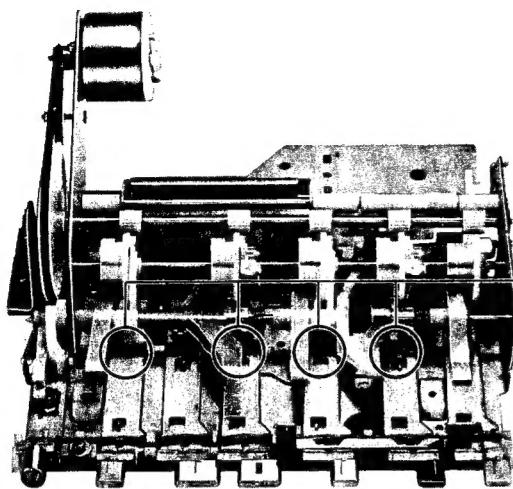
MECHANISM SECTION REMOVAL

Perform steps ① to ⑦, then separate the reel spindle plate ass'y and the chassis.

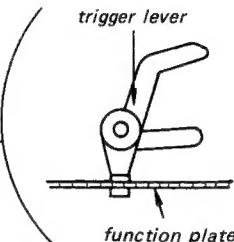


FUNCTION BLOCK REMOVAL

Refer to the exploded views on page 9.

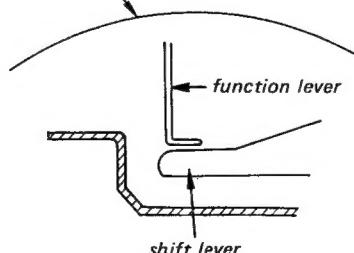
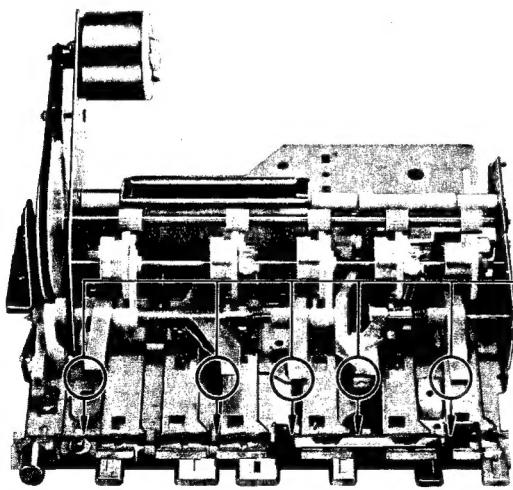


NOTE ON THE FUNCTION BLOCK INSTALLATION



1. The tip of each trigger lever should be in the hole of each function plate.
2. Each gear and lever should be properly installed.

INSTALLATION OF MECHANISM SECTION AND FUNCTION BLOCK



1. Push the five shift levers with fingers.

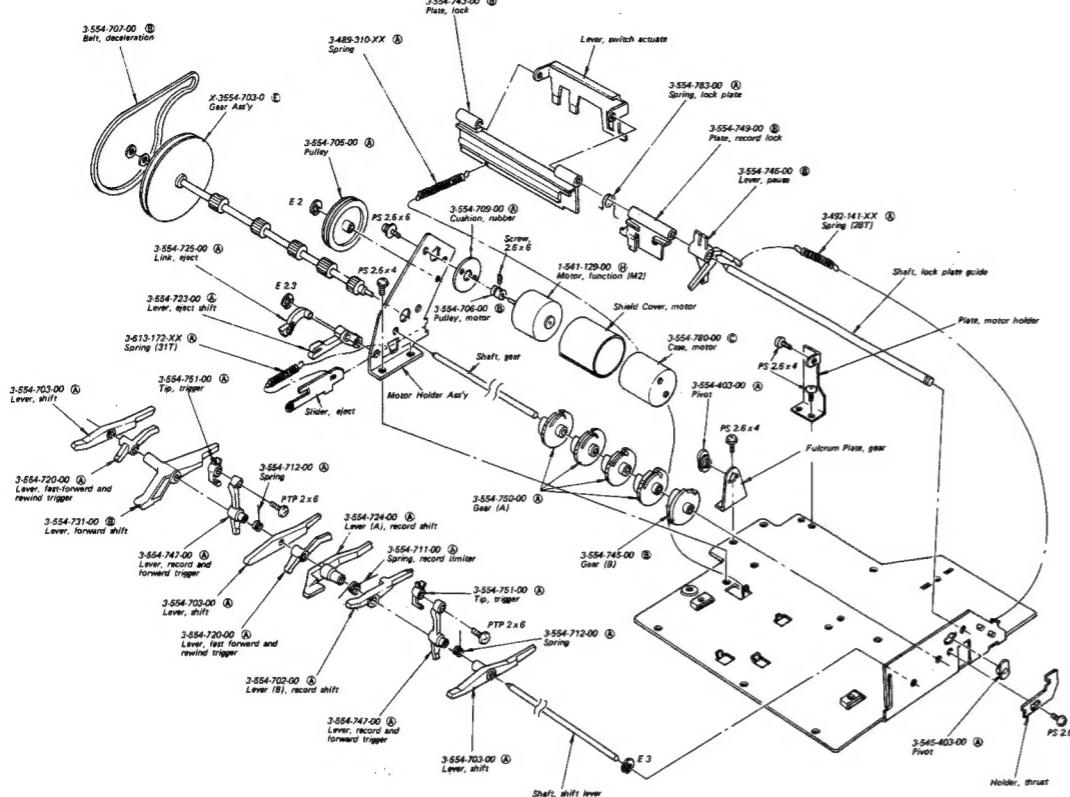
2. Set the shift lever under the function lever.
3. Install the mechanism section and the function block.

TC-K6/K6B TC-K6/K6B

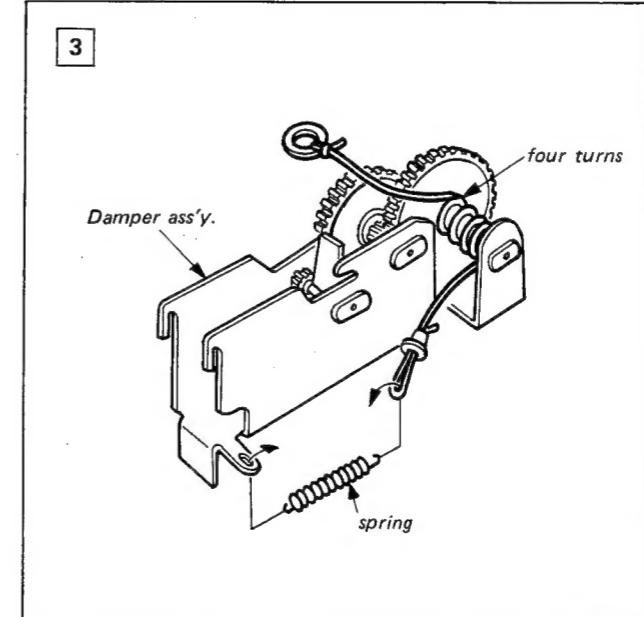
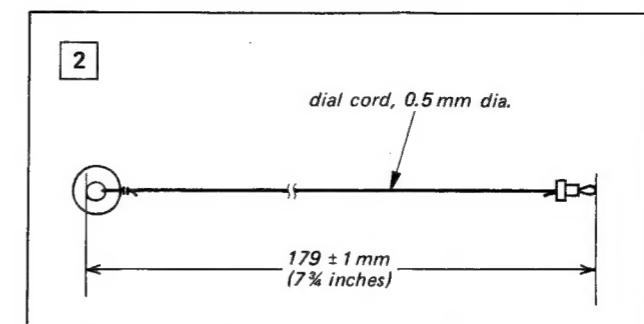
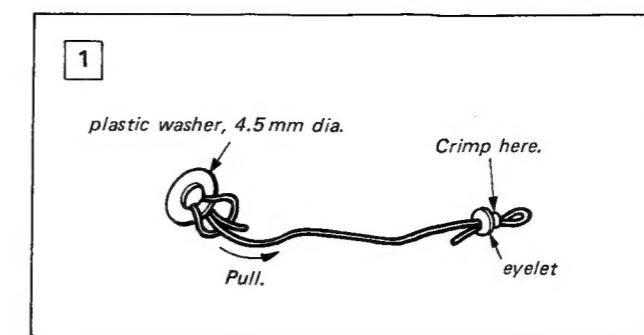
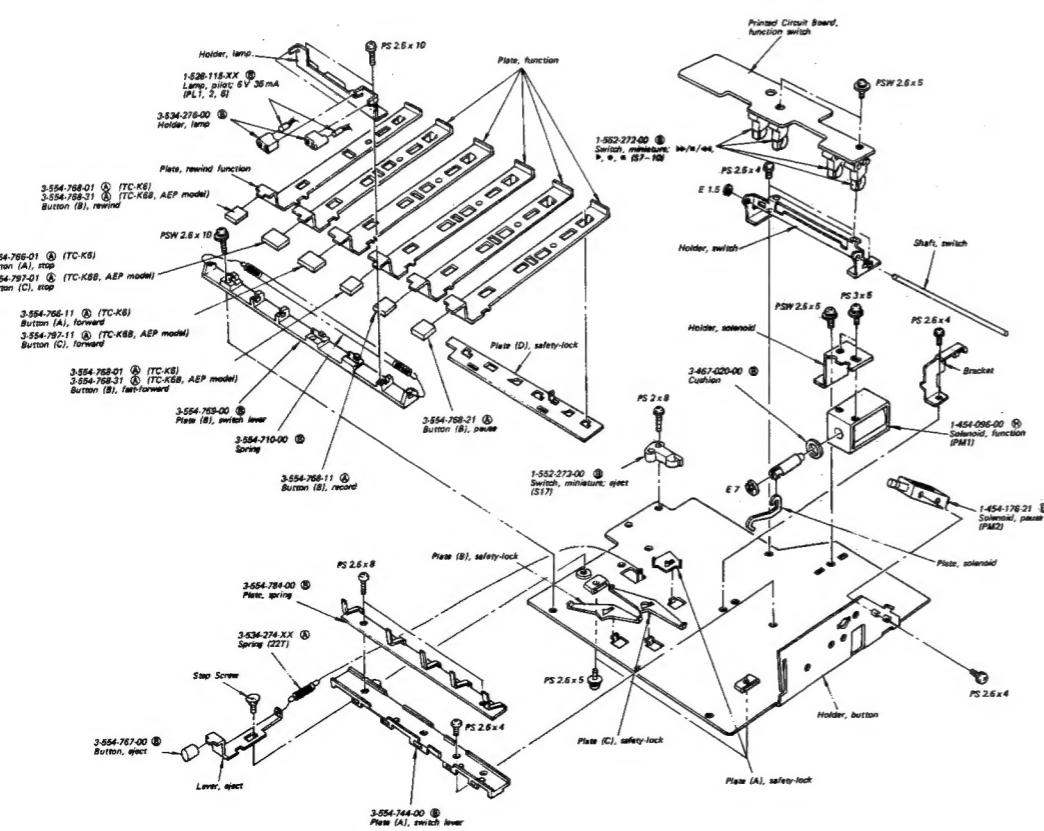
EXPLODED VIEWS OF FUNCTION BLOCK

(Same as exploded views on pages 39 and 40.)

(1)



(2)



SECTION 3

ADJUSTMENTS

3-1. MECHANICAL ADJUSTMENTS

PRECAUTION

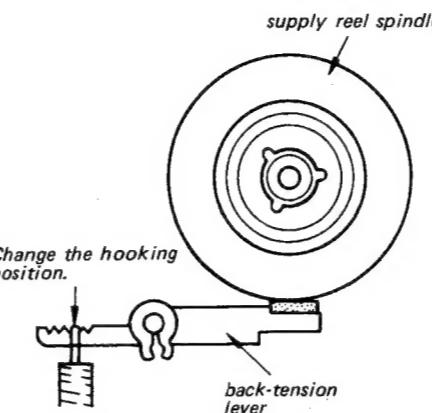
1. Clean the following parts with a denatured-alcohol-moistened swab:

record/playback head	pinch roller
erase head	rubber belts
capstan	idle
2. Demagnetize the record/playback head with a head demagnetizer.
3. Do not use a magnetized screwdriver for the adjustments.
4. After the adjustments, apply a suitable locking compound to the parts adjusted.
5. The adjustments should be performed with the rated power supply voltage unless otherwise noted.

Playback Tension Torque Adjustment

— Playback Mode —

Use the type CQ-102A cassette torque meter.

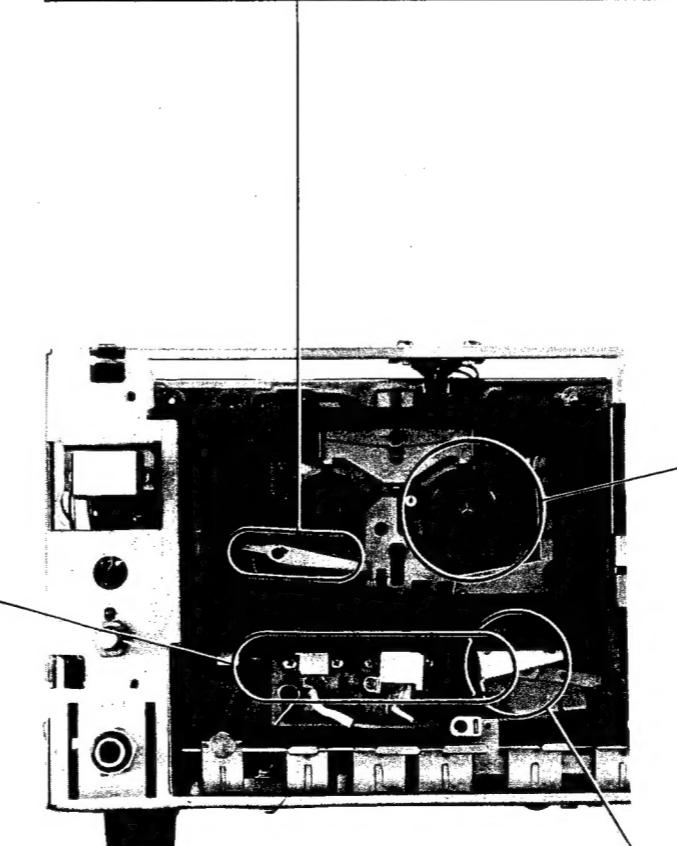
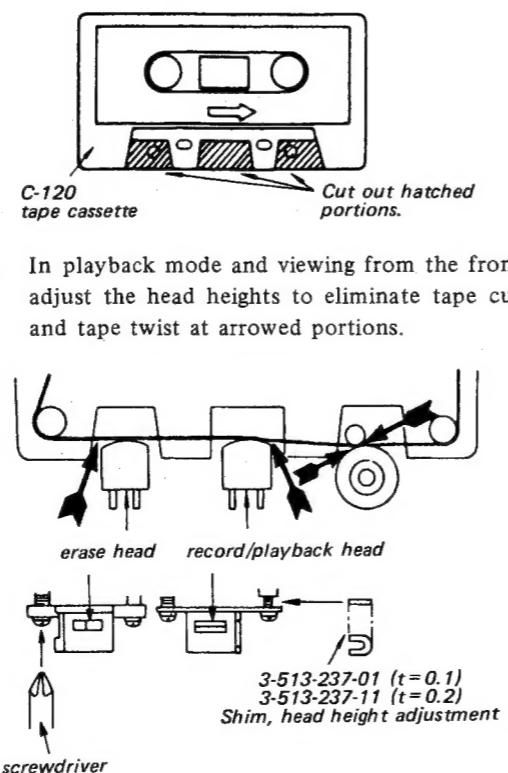


Specification: 2–4.5 g·cm (0.03–0.06 oz·inch)

Tape Path Adjustment

— Playback Mode —

1. Make an adjustment cassette as shown below.

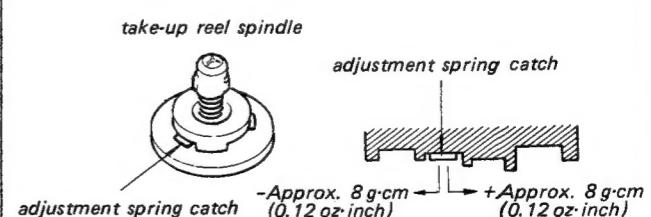


Forward Torque Adjustment

— Playback Mode —

1. Place the type CQ-102A cassette torque meter in the set.
2. Change the position of the adjustment spring catch.

Specification: 28–55 g·cm (0.39–0.77 oz·inch)

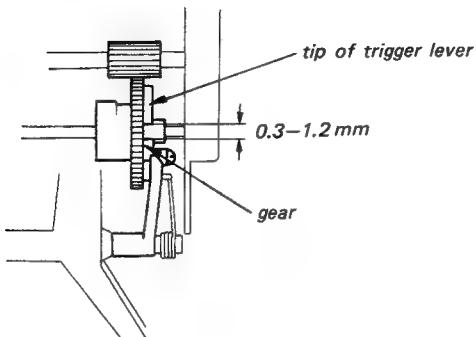


Reference Data

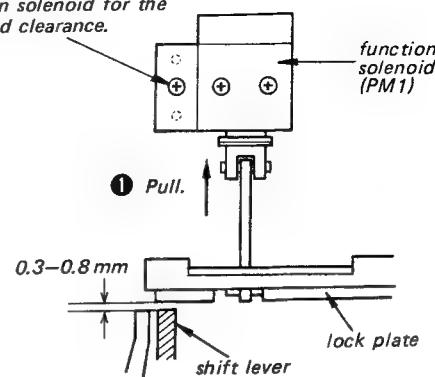
Pinch Roller Pressure: 310–390 g (11–14 oz)

Function Switch Board Position Adjustment

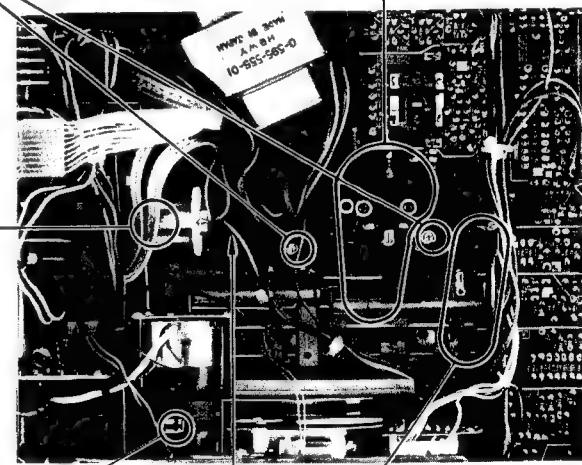
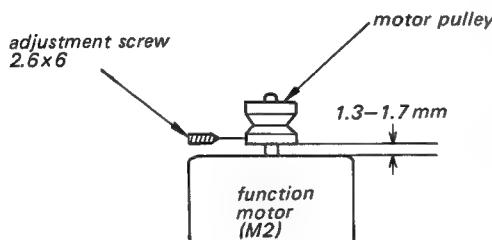
1. Push the forward button (►) with the gear held, and confirm that the condition of the gear and the tip of trigger lever is as shown below.
2. Adjust the position of the function switch board so that the motor rotates.

**Function Solenoid (PM1) Position Adjustment**

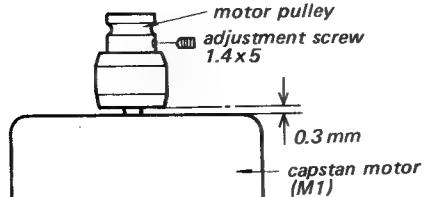
2. Adjust the position of the function solenoid for the specified clearance.

**Function Motor Pulley Height Adjustment**

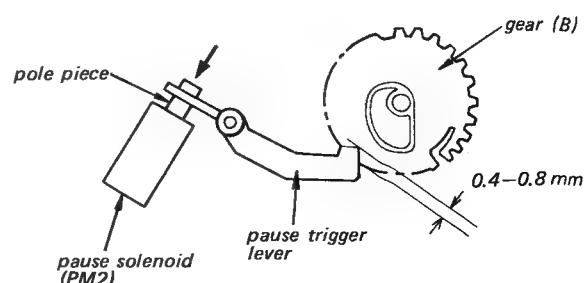
Adjust the position of the motor pulley for the specified clearance.

**Capstan Motor Pulley Height Adjustment**

Adjust the position of the motor pulley for the specified clearance.

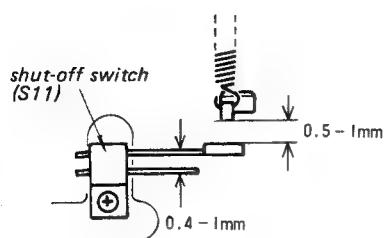
**Pause Solenoid (PM2) Position Adjustment**

1. Push the pole piece.
2. Adjust the position of the pause solenoid for the specified clearance.



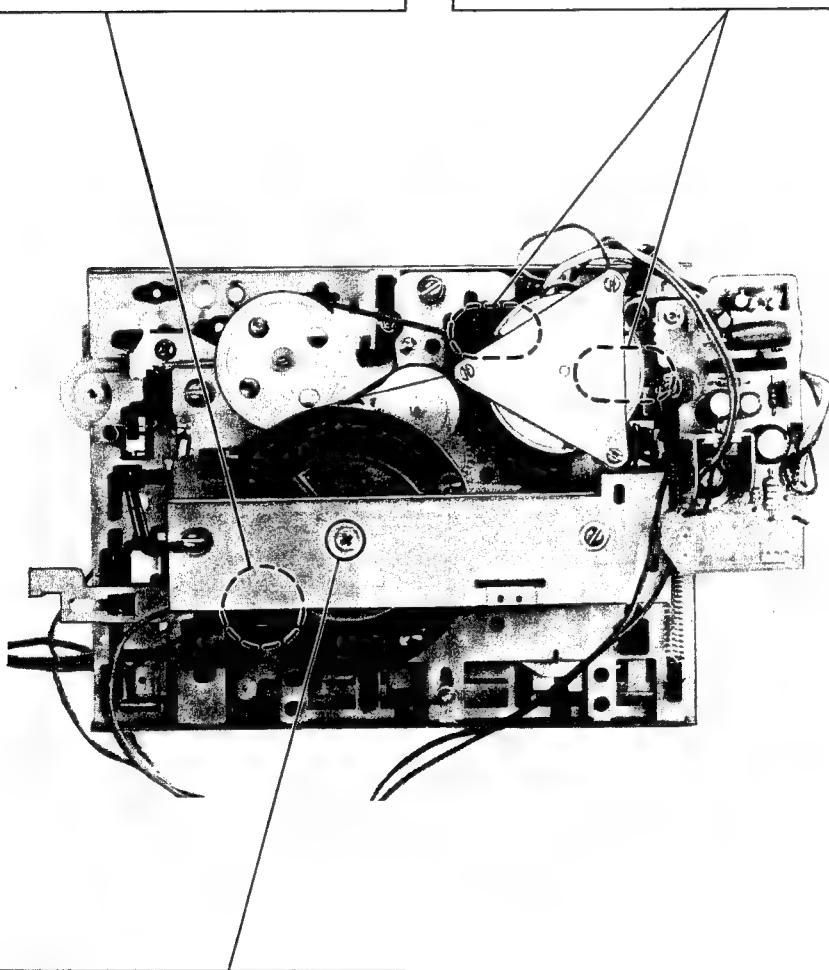
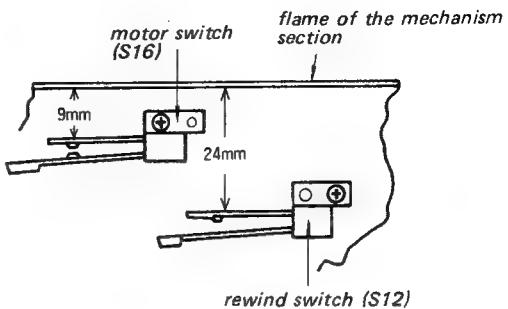
Shut-off Switch (S11) Position Adjustment

Adjust the position of the shut-off switch (S11).



Motor Switch (S16) and Rewind Switch (S12) Position Adjustment

Adjust the positions of switches.



Thrust Play Adjustment

— Playback Mode —

1. Loosen the thrust screw.
2. Carefully turn the thrust screw clockwise until current suddenly increases. Then loosen the thrust screw $\frac{1}{4}$ turn.
3. Secure the thrust screw with a suitable locking compound.

3-2. ELECTRICAL ADJUSTMENTS

Note: The adjustment should be performed in the order given in this service manual. The adjustments should be performed for both L-CH and R-CH.

BIAS and EQ switch settings in accordance with tape used are as follows.

Tape	BIAS switch	EQ switch
CS-10	NORMAL	NORMAL
CS-20	HIGH	CrO ₂
CS-30	NORMAL	Fe-Cr

Switches and controls should be set as follows unless otherwise specified.

DOLBY NR switch:	OFF
LINE OUT/HEADPHONE	
LEVEL control:	MAX
EQ switch:	NORMAL
BIAS switch:	NORMAL
MEMORY switch:	OFF
REC MUTE switch:	OFF

Standard Record:

Deliver the standard input signal level to the input jack and set the MIC REC VOL and LINE REC VOL controls to obtain the standard output signal level.

Standard Input Level

	MIC	LINE IN	REC/PB (AEP and E model)
source impedance	300Ω	10 kΩ	100 kΩ
input level	0.77 mV (-60 dB)	0.25 V (-10 dB)	17 mV (-33 dB)

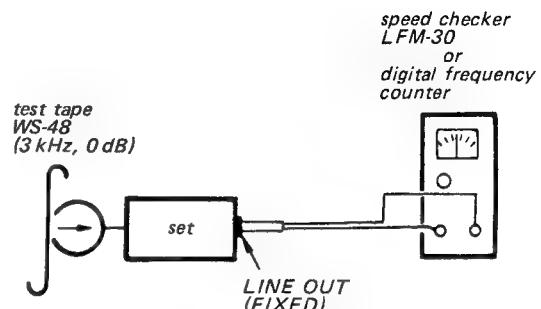
Standard Output Level

	VARIABLE LINE OUT	FIXED LINE OUT	HEAD-PHONES	REC/PB (AEP and E model)
load impedance	100 kΩ	100 kΩ	8Ω	50 kΩ
output level	0.775V (0 dB)	0.44V (-5 dB)	95 mV (-18 dB)	0.775V (0 dB)

Tape Speed Adjustment

Procedure:

Mode: Playback

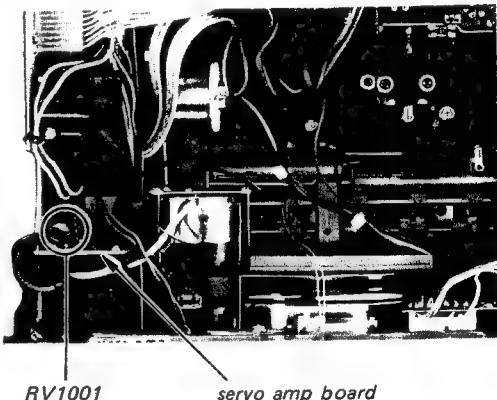


Specification:

Speed checker	Digital frequency counter
-0.7~+0.7%	2,980~3,020 Hz

Frequency difference between beginning and end of tape should be within 0.7% (20 Hz).

Adjustment Location:

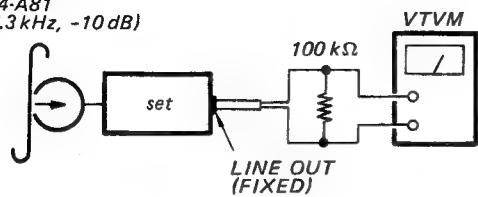


Record/playback Head Azimuth Adjustment

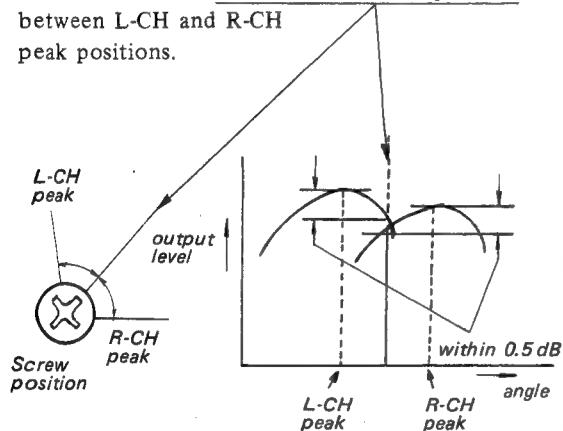
Procedure:

1. Mode: Playback

test tape
P-4-A81
(6.3 kHz, -10 dB)

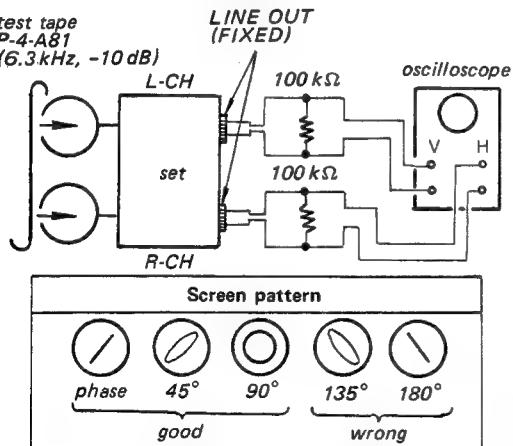


2. Turn the adjustment screw for the maximum level and set it to the mechanical mid position between L-CH and R-CH peak positions.

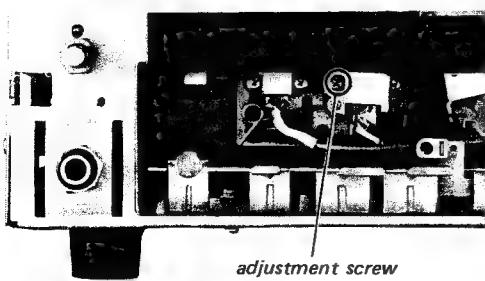


3. Mode: Playback

test tape
P-4-A81
(6.3 kHz, -10 dB)



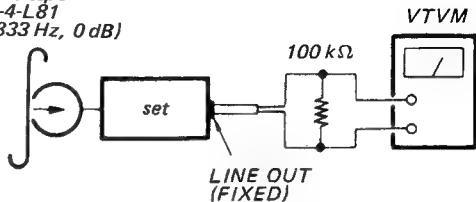
Adjustment Location:



Playback Level Adjustment

Procedure:

test tape
P-4-L81
(333 Hz, 0 dB)



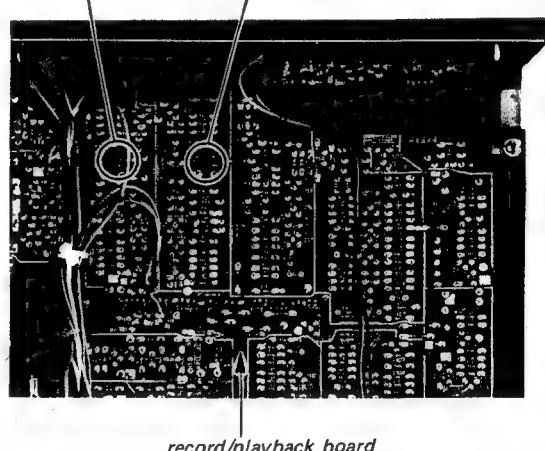
Specification:

LINE OUT level: 0.52–0.58 V (-3.5 – -2.5 dB)

Check that LINE OUT level does not change in playback mode while changing the mode from playback to stop several times.

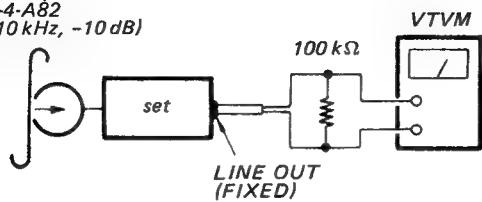
Adjustment Location:

RV103 (L-CH) RV203 (R-CH)



Playback Equalizer Adjustment**Procedure:**

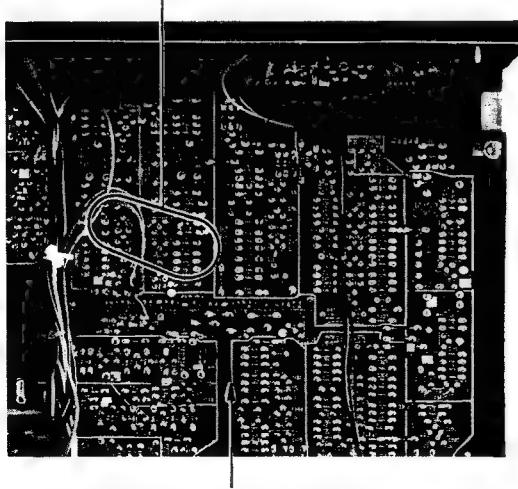
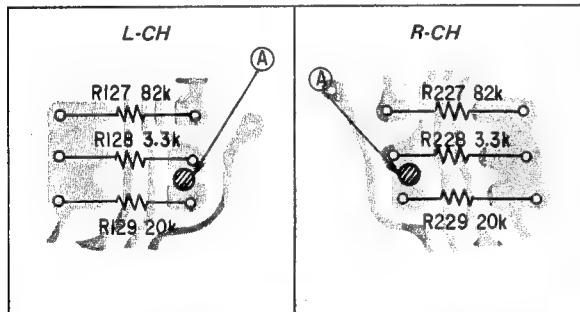
Mode: Playback

test tape
P-4-A82
(10 kHz, -10 dB)**Specification:**

EQ switch	LINE OUT (FIXED) level
NORMAL	0.26 – 0.37V (-9.5 – -6.5 dB)
Fe-Cr or Cr-O ₂	0.16 – 0.22V (-14 – -11 dB)

Adjustment Location:

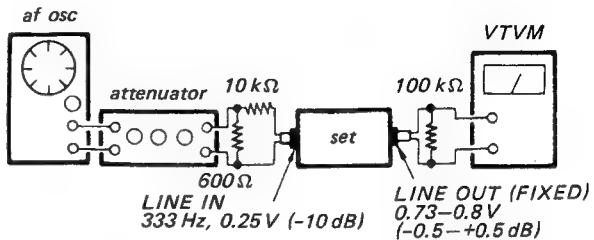
Bridge patterns	High frequency level
(open)	up
(A)	down



record/playback board

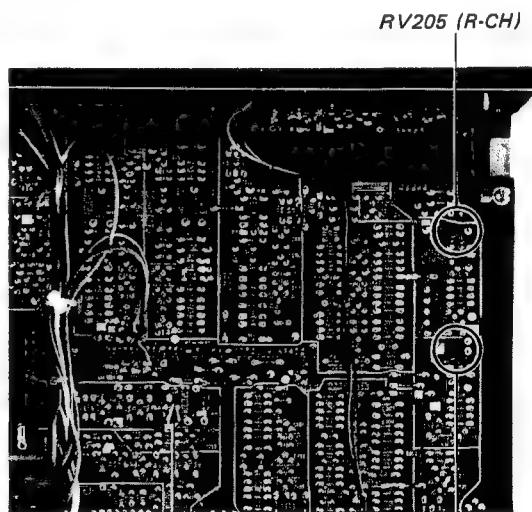
VU Meter Adjustment**Procedure:**

1. Mode: Standard record (See page 15.)



2.

Adjust	VU meter reading: 0VU
RV105 (L-CH)	
RV205 (R-CH)	

Adjustment Location:

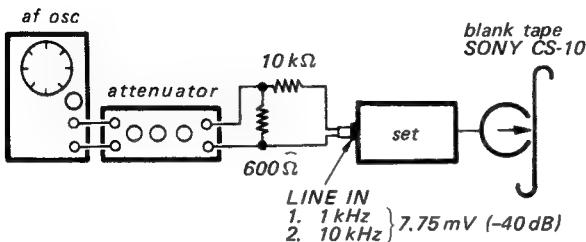
record/playback board

RV105 (L-CH)

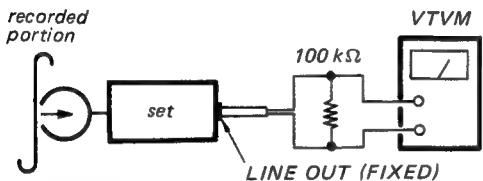
Record Bias Adjustment

Procedure:

1. Mode: Standard record (See page 15.)



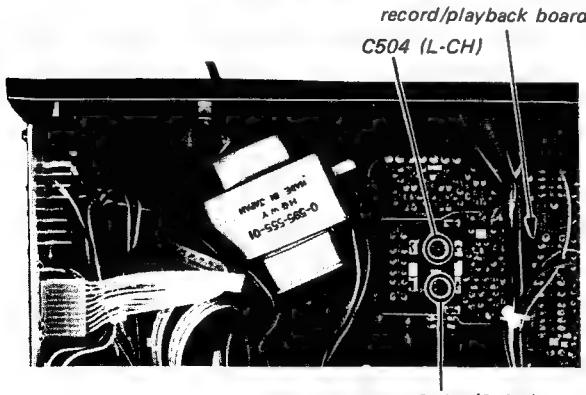
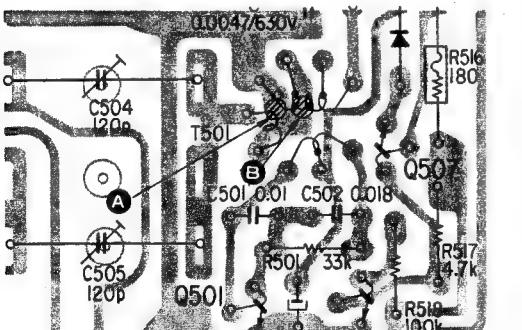
2. Mode: Playback



Adjust C504 (L-CH) and C505 (R-CH) to make 10 kHz and 1 kHz signal output levels equal.

Adjustment Location:

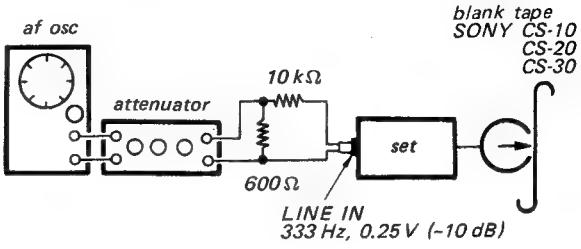
Note: Normally, patterns at **A** are bridged. If adjustment is not made with trimmers fully tightened, unsolder the bridged patterns at **A** and at **B**, then repeat the adjustment.



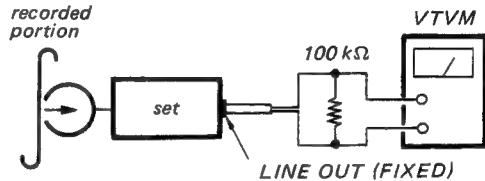
Record Level Adjustment

Procedure:

1. Mode: Standard record (See page 15.)



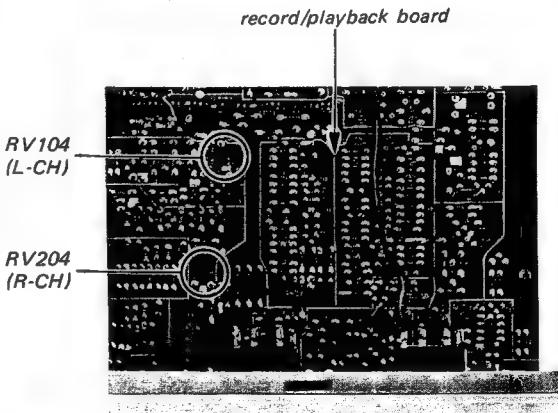
2. Mode: Playback



Specification:

SONY tape	LINE OUT level
CS-10	0.73 - 0.8V (-0.5 - +0.5 dB)
CS-20	0.55 - 0.73 V (-0.5 - -3 dB)
CS-30	0.65 - 0.9 V (-1.5 - +1.5 dB)

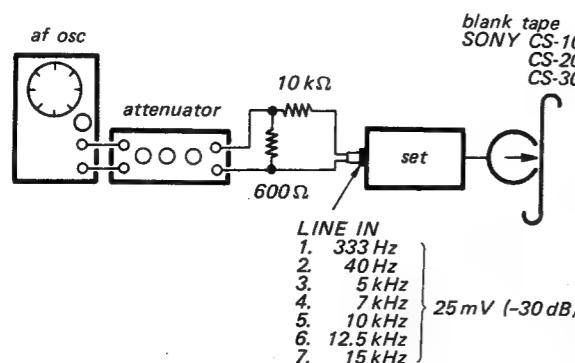
Adjustment Location:



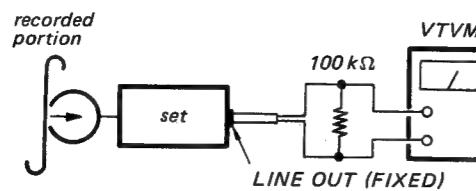
Overall Frequency Response Adjustment

Procedure:

1. Mode: Standard record (See page 15.)



2. Mode: Playback



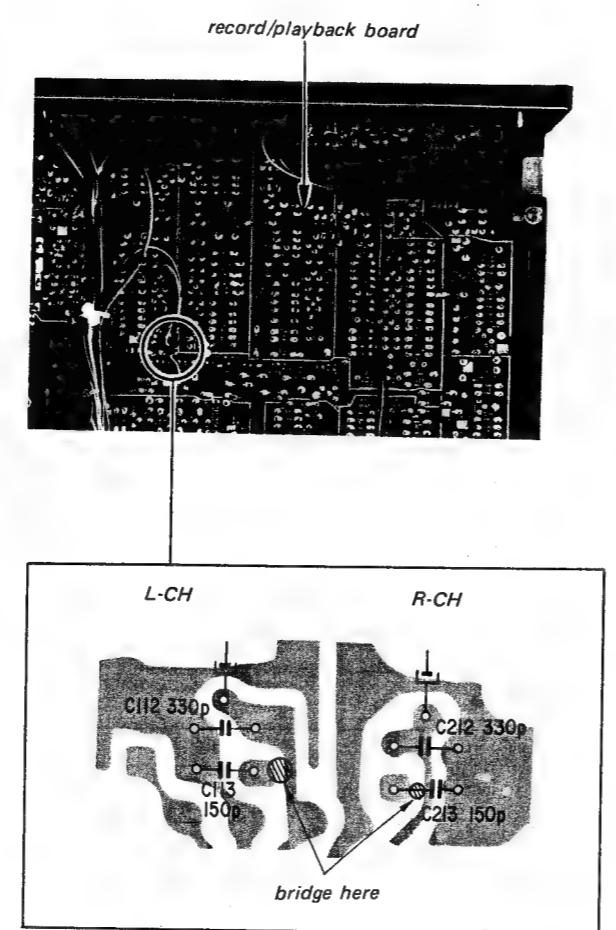
3. Measure LINE OUT level with 333Hz output level as reference.

Tape freq.	CS-10	CS-20	CS-30
40 Hz	+2 -1 dB	+2 -1 dB	+2 -1 dB
5 kHz			
7 kHz	±2 dB	+3 -2 dB	±2 dB
10 kHz		+4 -1 dB	
12.5 kHz	±3 dB	+4 -2 dB	±3 dB
15 kHz			

If the 15 kHz level is out of the specification, adjust by bridging patterns.

The 10 kHz level will go up (about +1.3 dB), and the 15 kHz level will go up (about +2 dB).

Adjustment Location:



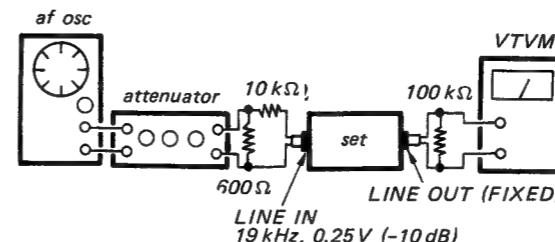
19 kHz Filter Adjustment

Procedure:

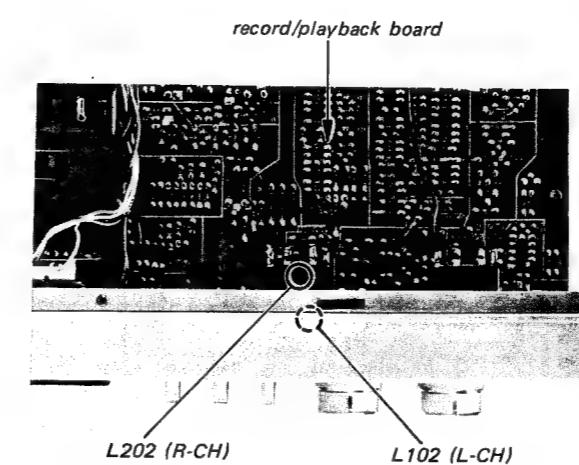
1. Mode: Standard record (See page 15.)

2. DOLBY NR switch: ON (FILTER ON)

Adjust L102 (L-CH) and L202 (R-CH) for minimum VTVM reading.



Adjustment Location:



19 kHz Filter Adjustment

Procedure:

1. Mode: Standard record (See page 15.)
2. DOLBY NR switch: ON (FILTER ON)

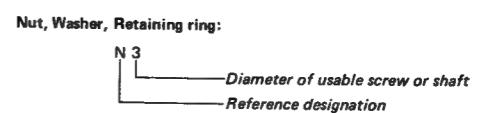
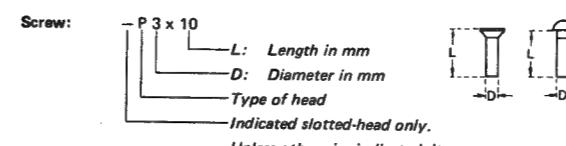
Adjust L102 (L-CH) and L202 (R-CH) for minimum VTVM reading.

af osc

Adjustment Location:

1/4 WATT CARBON RESISTORS

Q	Part No.	Q	Part No.	Q	Part No.	Q	Part No.	Q	Part No.	Q	Part No.
1.0	1-244-601-11	10	1-244-625-11	100	1-244-649-11	1.0k	1-244-673-11	10k	1-244-697-11	100k	1-244-721-11
1.1	1-244-602-11	11	1-244-626-11	110	1-244-650-11	1.1k	1-244-674-11	11k	1-244-698-11	110k	1-244-722-11
1.2	1-244-603-11	12	1-244-627-11	120	1-244-651-11	1.2k	1-244-675-11	12k	1-244-699-11	120k	1-244-723-11
1.3	1-244-604-11	13	1-244-628-11	130	1-244-652-11	1.3k	1-244-676-11	13k	1-244-700-11	130k	1-244-724-11
1.5	1-244-605-11	15	1-244-629-11	150	1-244-653-11	1.5k	1-244-677-11	15k	1-244-701-11	150k	1-244-725-11
1.6	1-244-606-11	16	1-244-630-11	160	1-244-654-11	1.6k	1-244-678-11	16k	1-244-702-11	160k	1-244-726-11
1.8	1-244-607-11	18	1-244-631-11	180	1-244-655-11	1.8k	1-244-679-11	18k	1-244-703-11	180k	1-244-737-11
2.0	1-244-608-11	20	1-244-632-11	200	1-244-656-11	2.0k	1-244-680-11	20k	1-244-704-11	200k	1-244-728-11
2.2	1-244-609-11	22	1-244-633-11	220	1-244-657-11	2.2k	1-244-681-11	22k	1-244-705-11	220k	1-244-729-11
2.4	1-244-610-11	24	1-244-634-11	240	1-244-658-11	2.4k	1-244-682-11	24k	1-244-706-11	240k	1-244-730-11
2.7	1-244-611-11	27	1-244-635-11	270	1-244-659-11	2.7k	1-244-683-11	27k	1-244-707-11	270k	1-244-731-11
3.0	1-244-612-11	30	1-244-636-11	300	1-244-660-11	3.0k	1-244-684-11	30k	1-244-708-11	300k	1-244-732-11
3.3	1-244-613-11	33	1-244-637-11	330	1-244-661-11	3.3k	1-244-685-11	33k	1-244-709-11	330k	1-244-733-11
3.6	1-244-614-11	36	1-244-638-11	360	1-244-662-11	3.6k	1-244-686-11	36k	1-244-710-11	360k	1-244-734-11
3.9	1-244-615-11	39	1-244-639-11	390	1-244-663-11	3.9k	1-244-687-11	39k	1-244-711-11	390k	1-244-735-11
4.3	1-244-616-11	43	1-244-640-11	430	1-244-664-11	4.3k	1-244-688-11	43k	1-244-712-11	430k	1-244-736-11
4.7	1-244-617-11	47	1-244-641-11	470	1-244-665-11	4.7k	1-244-689-11	47k	1-244-713-11	470k	1-244-737-11
5.1	1-244-618-11	51	1-244-642-11	510	1-244-666-11	5.1k	1-244-690-11	51k	1-244-714-11	510k	1-244-738-11
5.6	1-244-619-11	56	1-244-643-11	560	1-244-667-11	5.6k	1-244-691-11	56k	1-244-715-11	560k	1-244-739-11
6.2	1-244-620-11	62	1-244-644-11	620	1-244-668-11	6.2k	1-244-692-11	62k	1-244-716-11	620k	1-244-740-11
6.8	1-244-621-11	68	1-244-645-11	680	1-244-669-11	6.8k	1-244-693-11	68k	1-244-717-11	680k	1-244-741-11
7.5	1-244-622-11	75	1-244-646-11	750	1-244-670-11	7.5k	1-244-694-11	75k	1-244-718-11	750k	1-244-742-11
8.2	1-244-623-11	82	1-244-647-11	820	1-244-671-11	8.2k	1-244-695-11	82k	1-244-719-11	820k	1-244-743-11
9.1	1-244-624-11	91	1-244-648-11	910	1-244-672-11	9.1k	1-244-696-11	91k	1-244-720-11	910k	1-244-744-11

HARDWARE NOMENCLATURE

Reference Designation	Shape	Description	Remarks
SCREWS			
P		pan-head screw	binding-head (B) screw for replacement
PWH		pan-head screw with washer face	binding-head (B) screw and flat washer for replacement
PS PSP		pan-head screw with spring washer	binding-head (B) screw and spring washer for replacement
PSW PSPW		pan-head screw with spring and flat washers	binding-head (B) screw and spring and flat washers for replacement
R		round-head screw	binding-head (B) screw for replacement
K		flat-countersunk-head screw	
RK		oval-countersunk-head screw	
B		binding-head screw	
T		truss-head screw	binding-head (B) screw for replacement
F		flat-fillister-head screw	
RF		fillister-head screw	
BV		braizer-head screw	

Reference Designation	Shape	Description	Remarks
SELF-TAPPING SCREWS			
TA		self-tapping screw	ex: TA, P 3 x 10
PTP		pan-head self-tapping screw	binding-head self-tapping (TA, B) screw for replacement
PTPWH		pan-head self-tapping screw with washer face	binding-head self-tapping (TA, B) screw and flat washer for replacement
PTTWH		pan-head thread-rolling screw with washer face	binding-head (B) screw and flat washer for replacement
SET SCREWS			
SC		set screw	
SC		hexagon-socket set screw	ex: SC 2.6 x 4, hexagon socket
NUT			
N		nut	
WASHERS			
W		flat washer	
SW		spring washer	
LW		internal-tooth lock washer	ex: LW3, internal
LW		external-tooth lock washer	ex: LW3, external
RETAINING RINGS			
E		retaining ring	
G		grip-type retaining ring	

SECTION 4 DIAGRAMS

4-1. MOUNTING DIAGRAM – System Control Section –

— Conductor Side —

Replacement Semiconductors

For replacement, use semiconductors except in ().

Q601, 602, 604–606
Q608, 609, 611–616
Q618, 621 } : 2SC634A

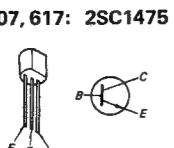
Q1001: 2SC1061 (2SC1419)



D617: EQB01-12 (EQA01-12)
D622: EQB01-08 (EQA01-08)



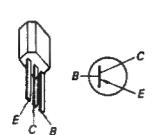
IC1001: CX065A (CX065)



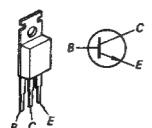
D601-616, 620 }
D621, 630, 631 } : 1S1555 (1T4)



Q610: 2SA678

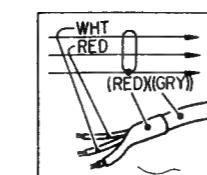


0619-620: 2SC1173

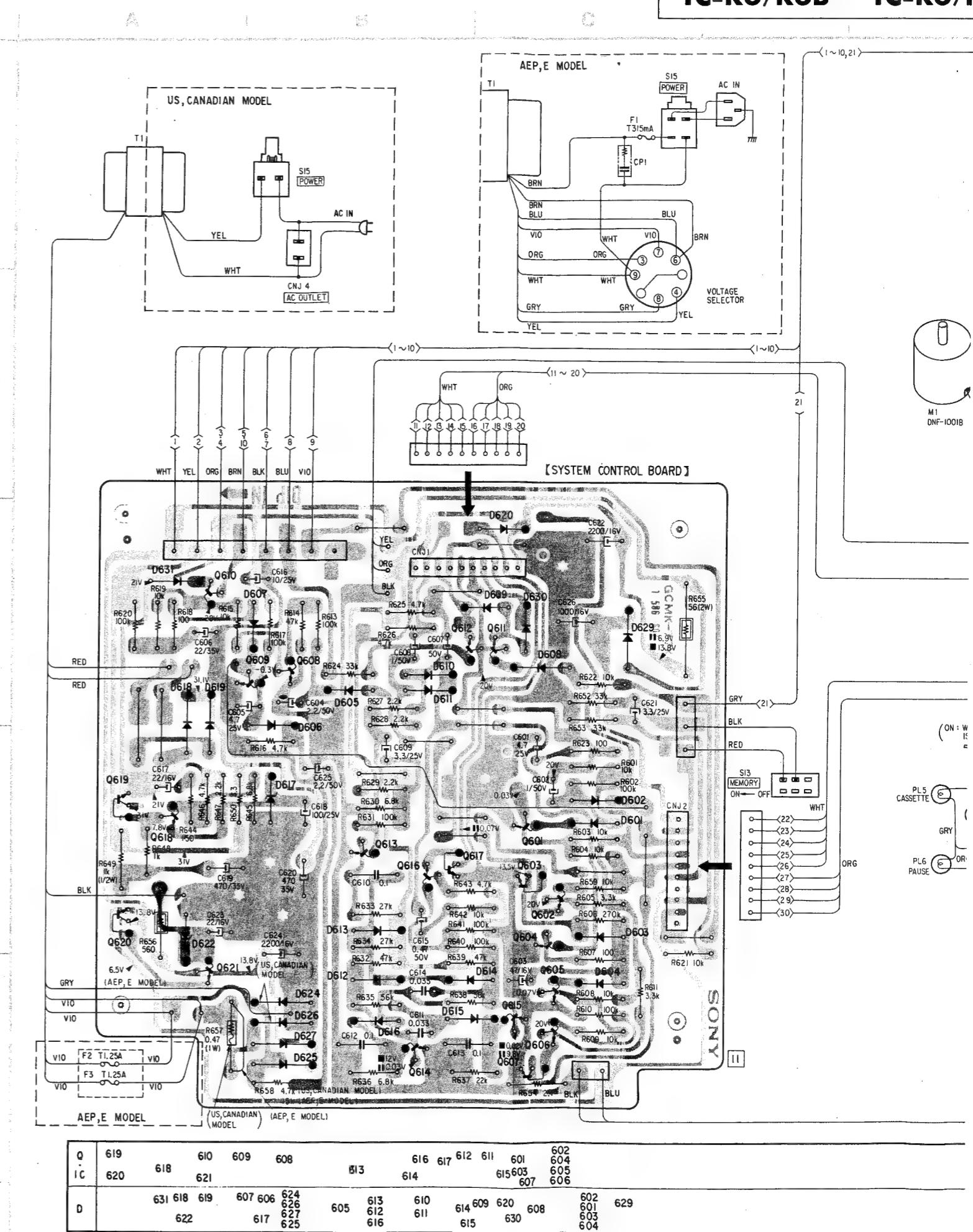


Ns

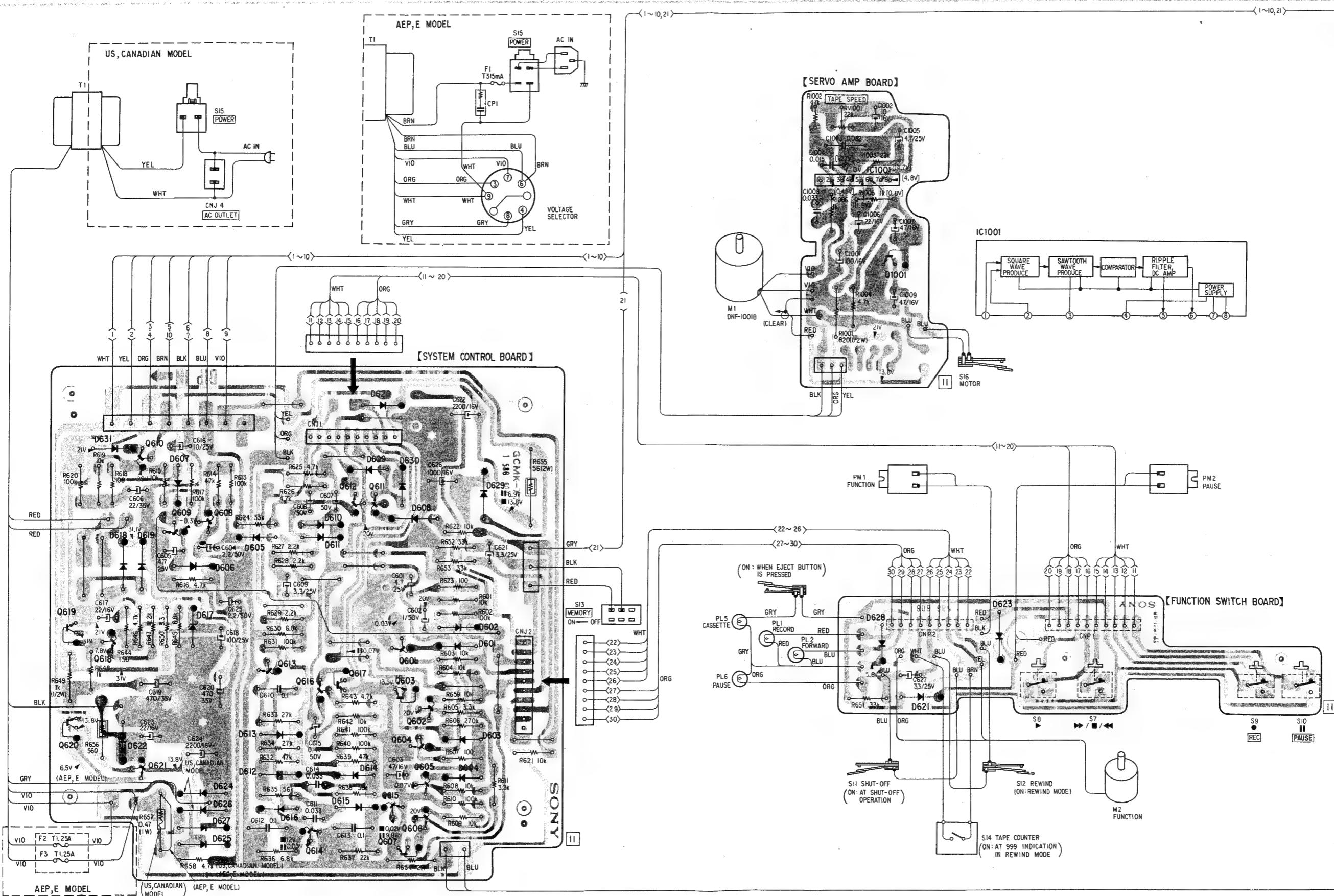
- [] : B+ pattern.
- [] : FORWARD
- : STOP
- : PAUSE
- Color code of sleeves over the end of the jackete



- 22 -



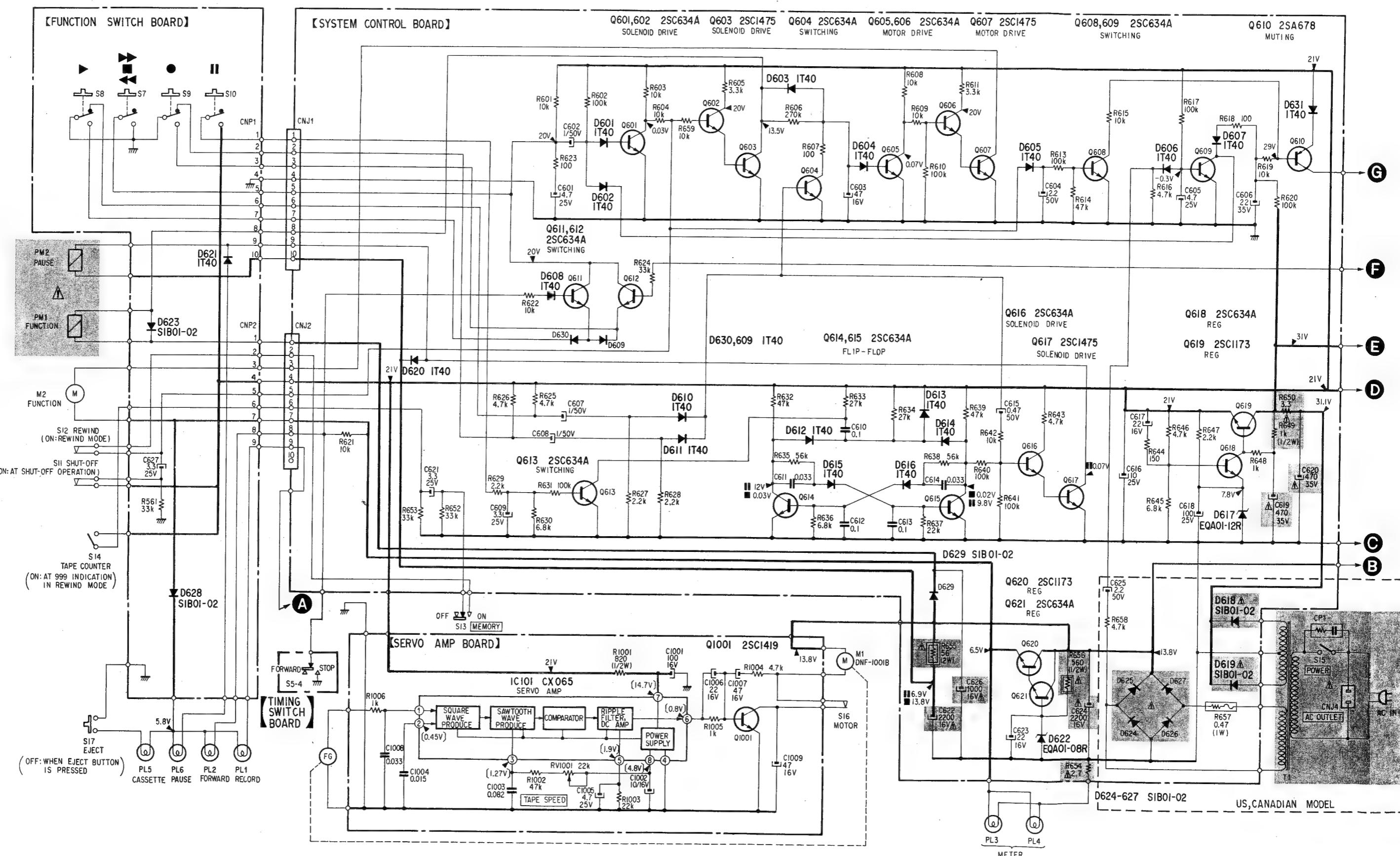
TC-K6/K6B

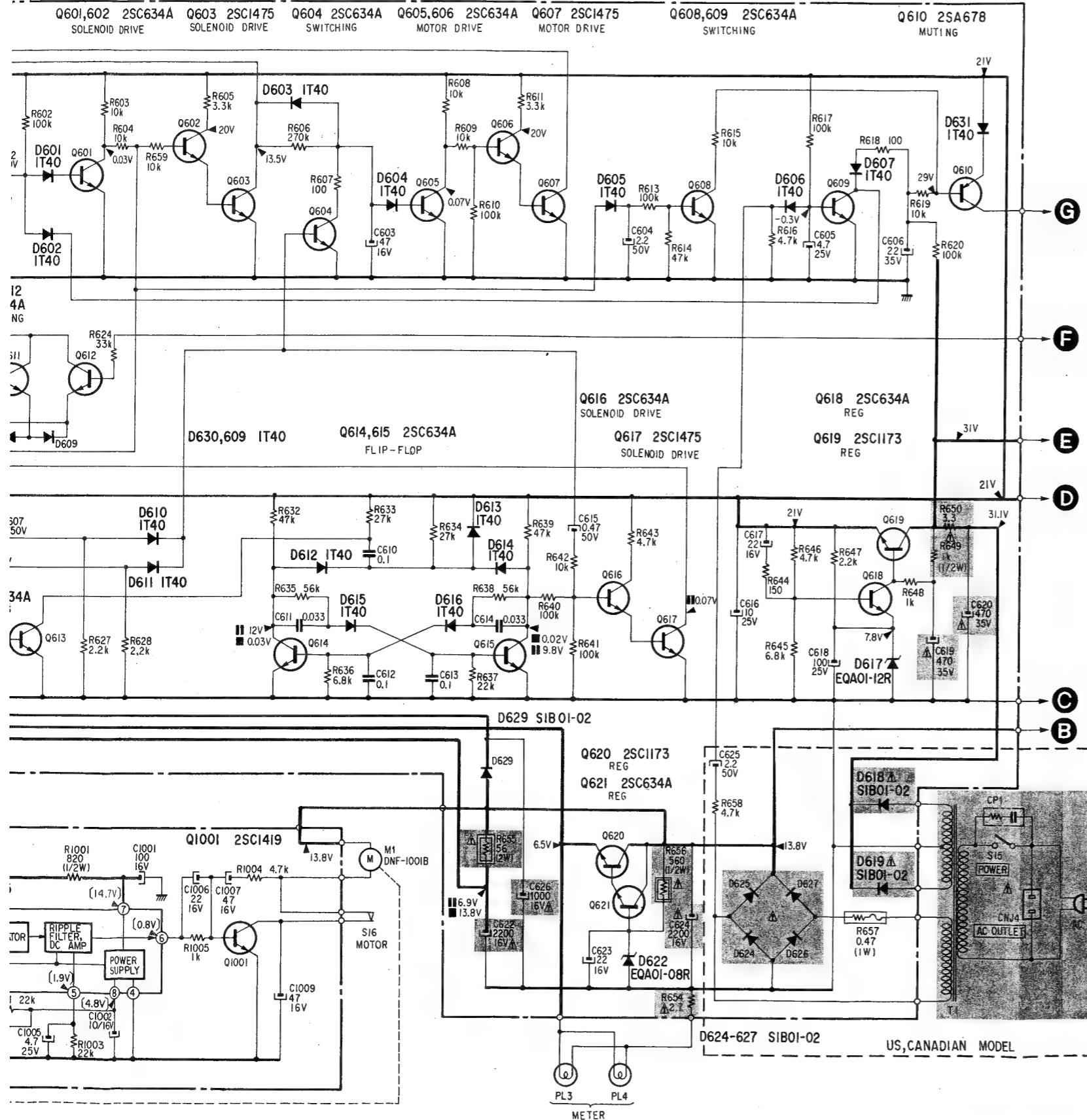


4.2. SCHEMATIC DIAGRAM – System Control Section –

– System Control Section –

Note: The components identified by shading and  mark are critical for safety. Replace only with part number specified.



⚠ mark
part number

Note:

- All capacitors are in μ F unless otherwise noted. μ F = $\mu\mu$ F 50V or less are not indicated except for electrolytics.
- All resistors are in ohms, $\frac{1}{4}$ W unless otherwise noted. $k\Omega$ = 1000 Ω , M Ω = 1000 k Ω .
- : nonflammable resistor.
- : fusible resistor.
- : B+ bus.
- : panel designation.
- : adjustment for repair.
- Voltages are dc with respect to ground unless otherwise noted.
- Readings are taken under no signal conditions with a VOM (20 k Ω /V).
- []: FORWARD
■: STOP
■: PAUSE
- Voltage variations may be noted due to normal production tolerances.
- Switch

Ref. No.	Switch	Position
S7	STOP, REWIND, FAST FORWARD	OFF
S8	FORWARD	OFF
S9	REC	OFF
S10	PAUSE	OFF
S11	SHUT-OFF	OFF
S12	REWIND	OFF
S13	MEMORY	OFF
S14	TAPE COUNTER	OFF
S15	POWER	OFF
S16	MOTOR	OFF
S17	EJECT	OFF

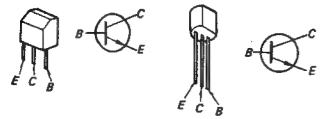
4-3. MOUNTING DIAGRAM

— Amp Section —
— Conductor Side —

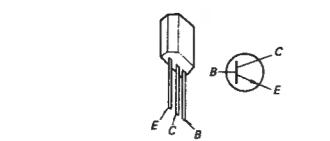
Replacement Semiconductors

For replacement, use semiconductors except in ().

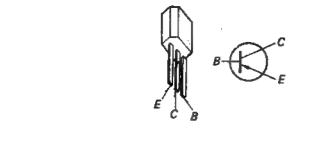
Q101–105, 107, 111} : 2SC1345
Q201–205, 207, 211}



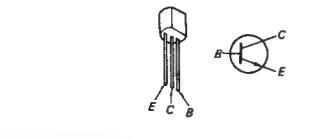
Q106, 108–110, 113
 Q206, 208–210, 213
 Q114–116, 224–226 : 2SC634A
 Q301–305, 502–508 (2SC633A)
 Q401–405



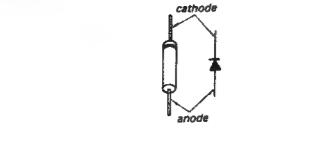
Q112, 212: 2SA678 (2SA677)



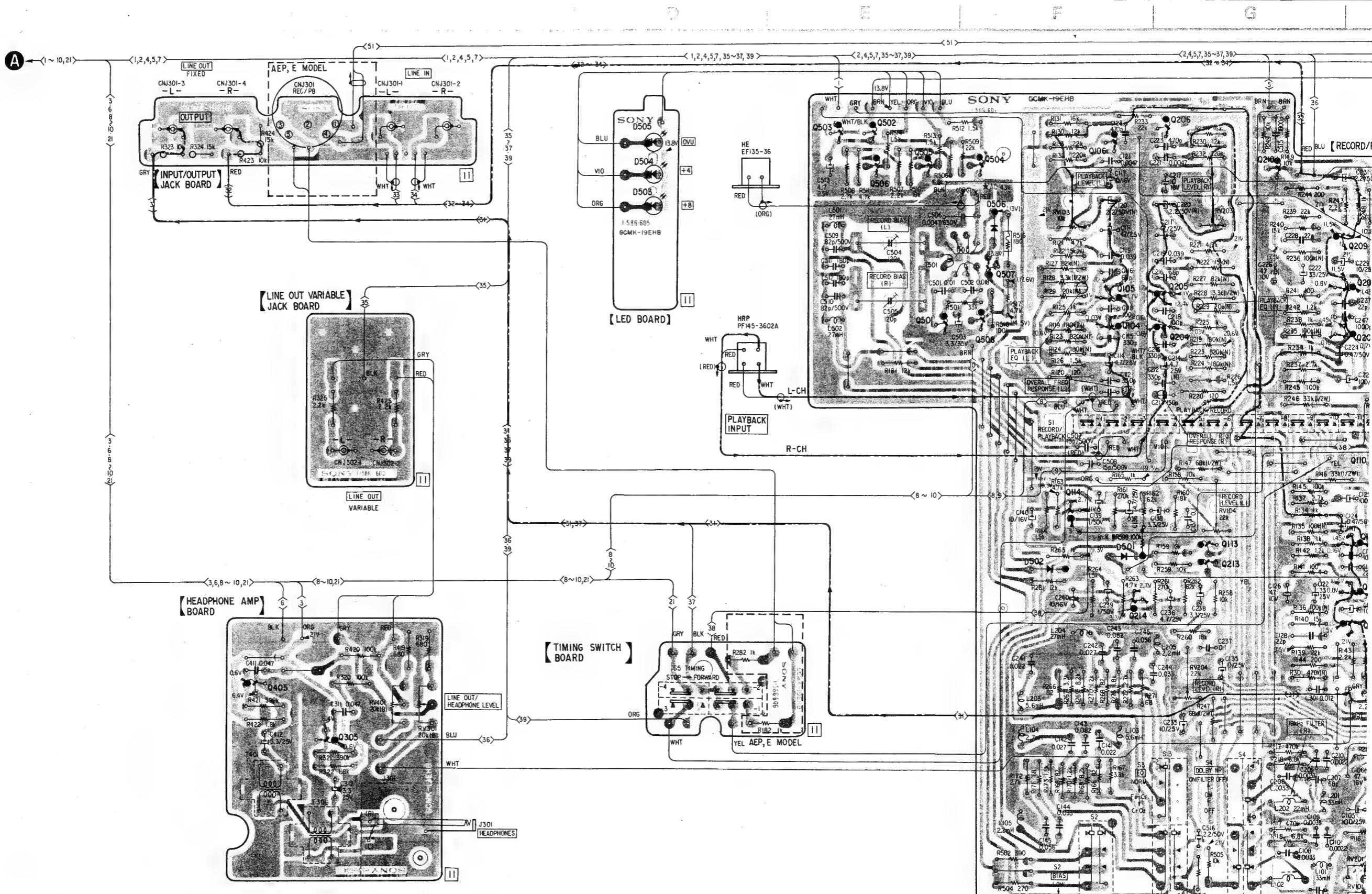
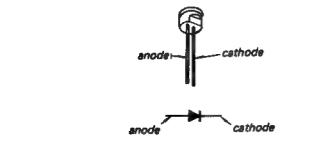
Q501: 2SC1475 (2SC1318)



D301, 302 } : 1S1555
D401, 402 } : 1T22A
D303, 403 : 1S1555 (1T40)
D304, 404 } : 1S1555 (1T40)
D501, 502, 506 } :

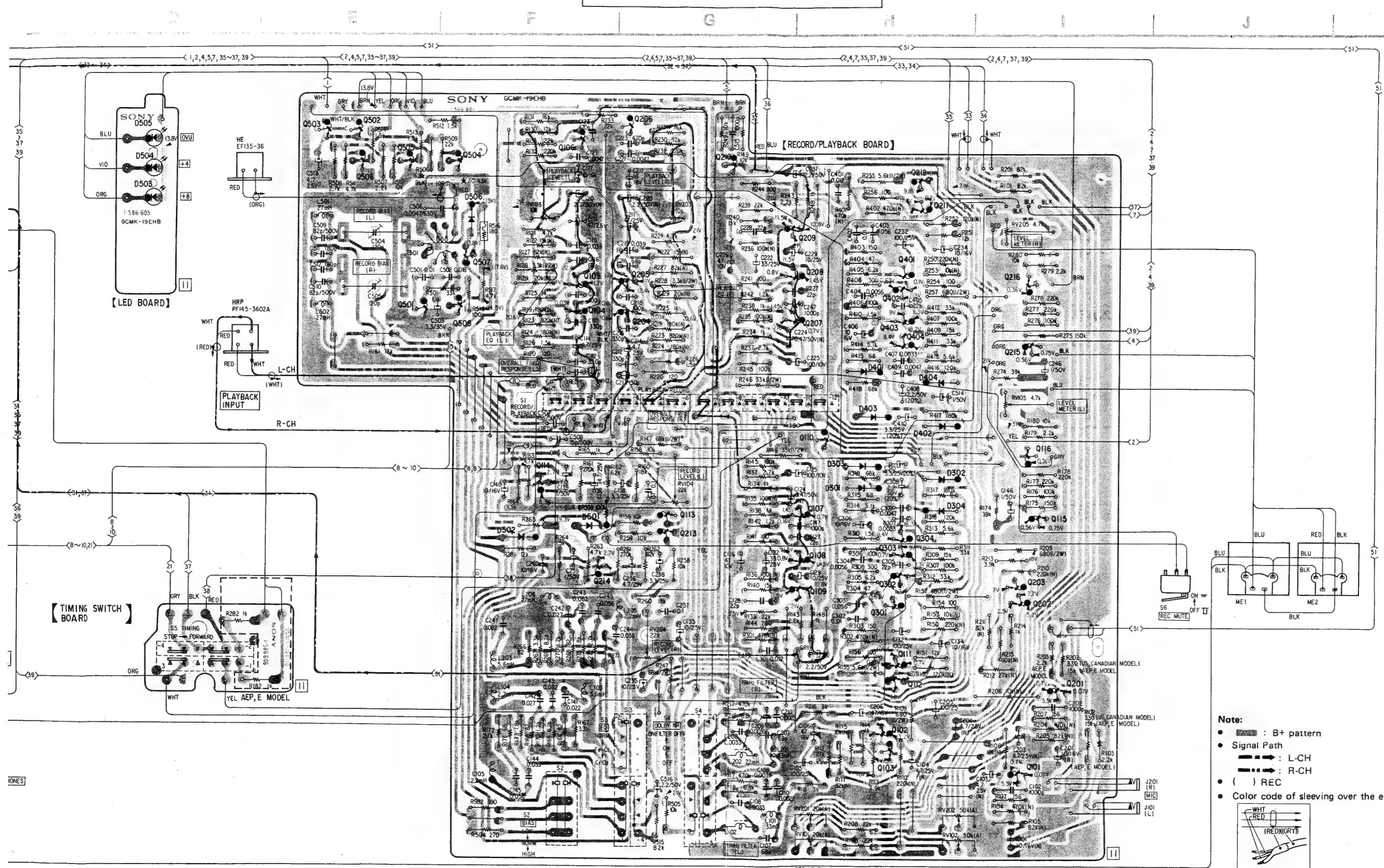


D503–505: SLP24B



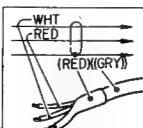
Q	405	305	503	502	505	504	114	106	206	113	210	209
			506	501	508	507	105	205	204	213	108	206
D			505		506		104	214	204	213	108	207

TC-K6/K6B **TC-K6/K6B**



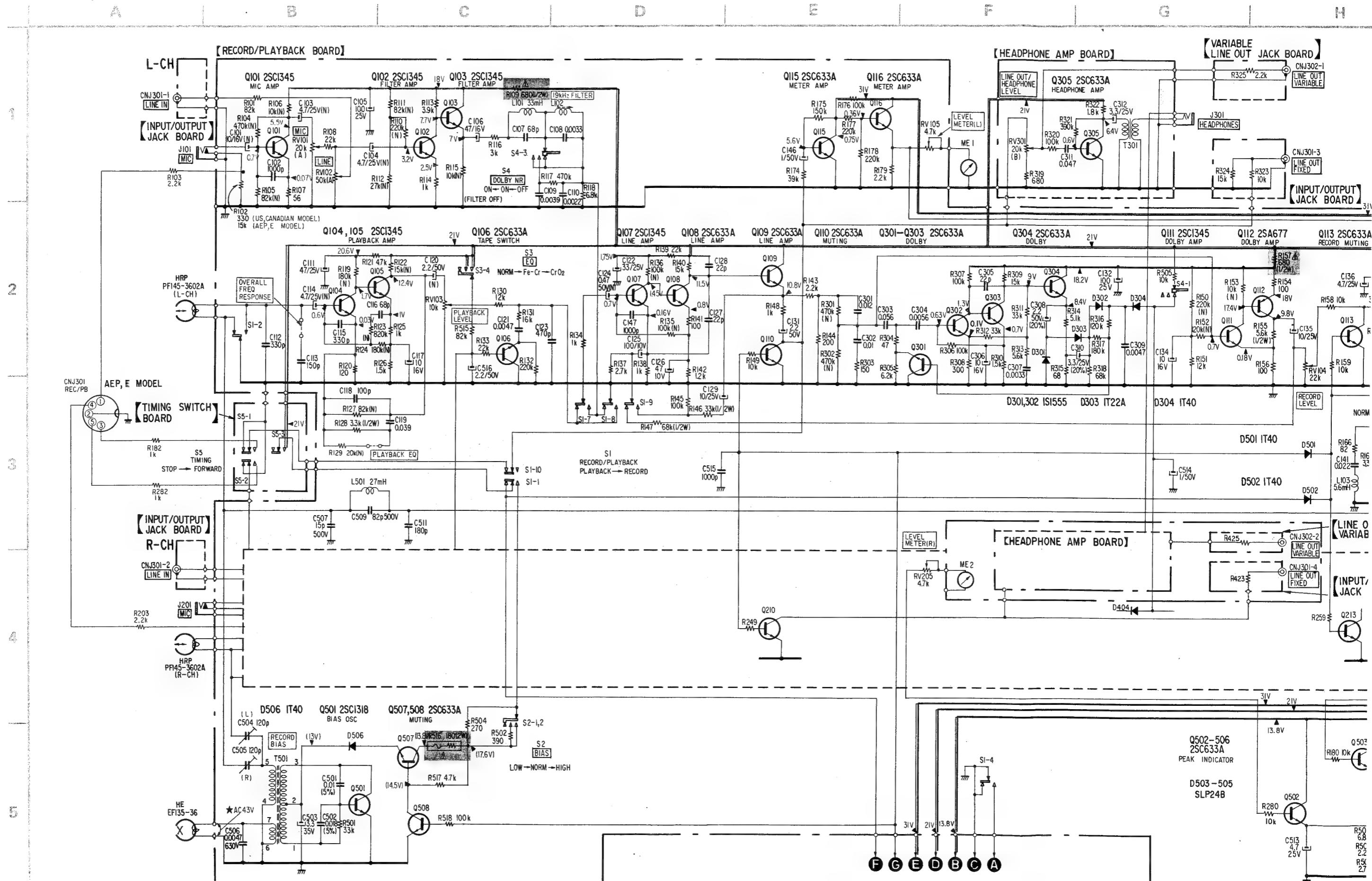
Note:

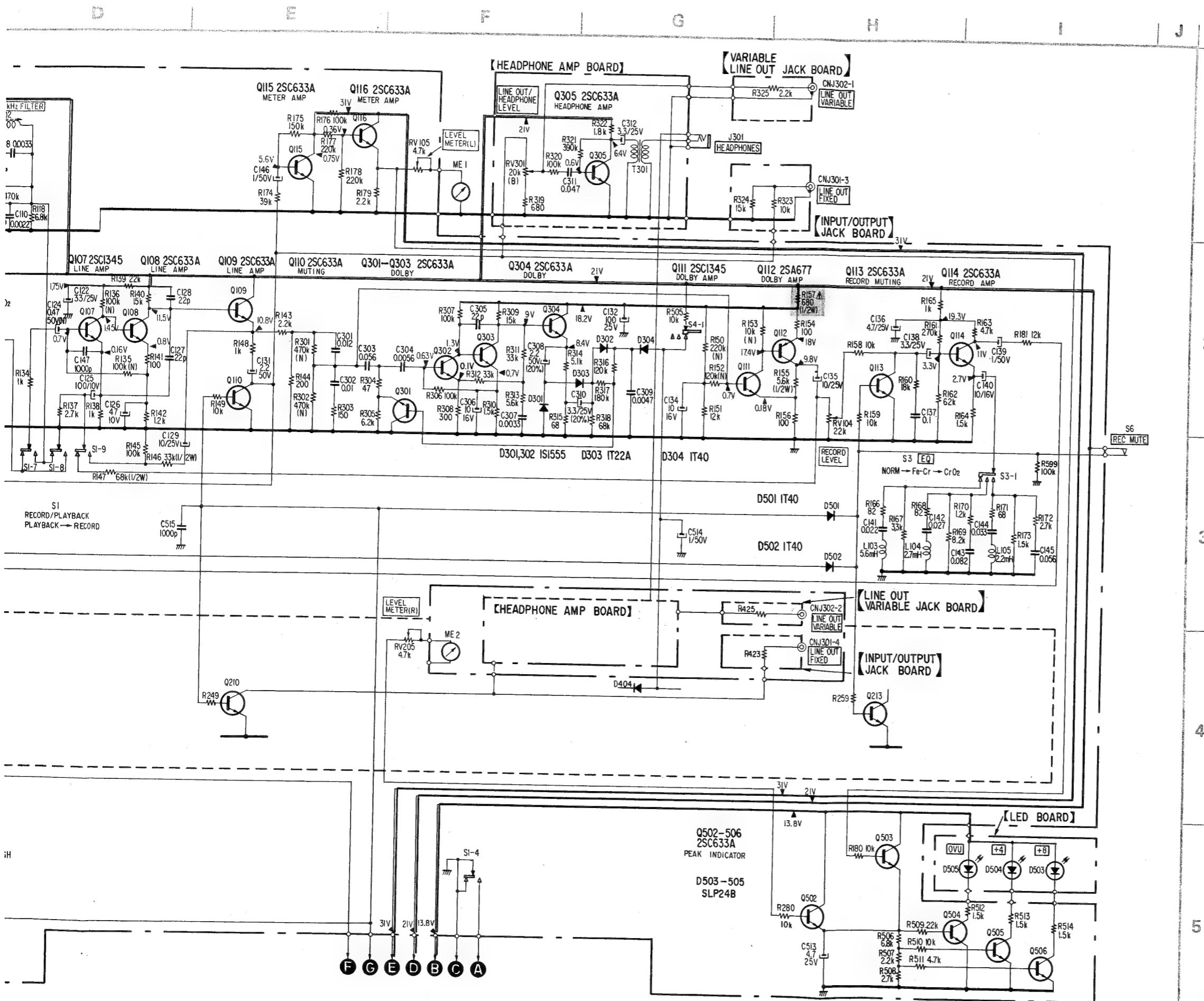
- : B+ pattern
- Signal Path
 - : L-CH
 - : R-CH
- () REC
- Color code of sleeving over the end of the jacket.



	503	502	505	504	114	106	206	113	210	209	107	110	301	401	111,304,212	203	216	Q
	506	501	508	507		105	205	213		208	108		302	402	112,303,211	202	215	
						104	214			207	109		103	403	302,404	101,116	115	201
													301	401				
	505						506						303	403	404			
	504							502						302	402			
	503												301	401	304			

– Amp Section –





Note:

- All capacitors are in μ F unless otherwise noted. μ F = $\mu\mu$ F 50WV or less are not indicated except for electrolytics.
- All resistors are in ohms, $\frac{1}{4}$ W unless otherwise noted. $k\Omega$ = 1000 Ω , $M\Omega$ = 1000 k Ω
- --- : fusible resistor.
- (N) : low-noise resistor and capacitor.
- 0% indicates component tolerance.
- --- : B+ bus.
- --- : panel designation.
- --- : adjustment for repair.
- Voltages are dc with respect to ground unless otherwise noted.
- Readings are taken under no signal conditions with a VOM (20 k Ω /V).
- () : RECORD
- AC voltage readings indicated by \star in the bias oscillator circuit are taken with a VTVM.
- Voltage variations may be noted due to normal production tolerances.
- Switch

Ref. No.	Switch	Position
S1-1 to S1-12	RECORD/PLAYBACK	PLAYBACK
S2	BIAS	LOW
S3-1, S3-2, S3-4	EQ	NORM
S4-1, S4-2, S4-4	DOLBY NR	OFF
S5-1 to S5-4	TIMING	STOP
S6	REC MUTE	OFF

Note: The components identified by shading and Δ mark are critical for safety. Replace only with part number specified.

A

B

C

D

E

(1) Note:

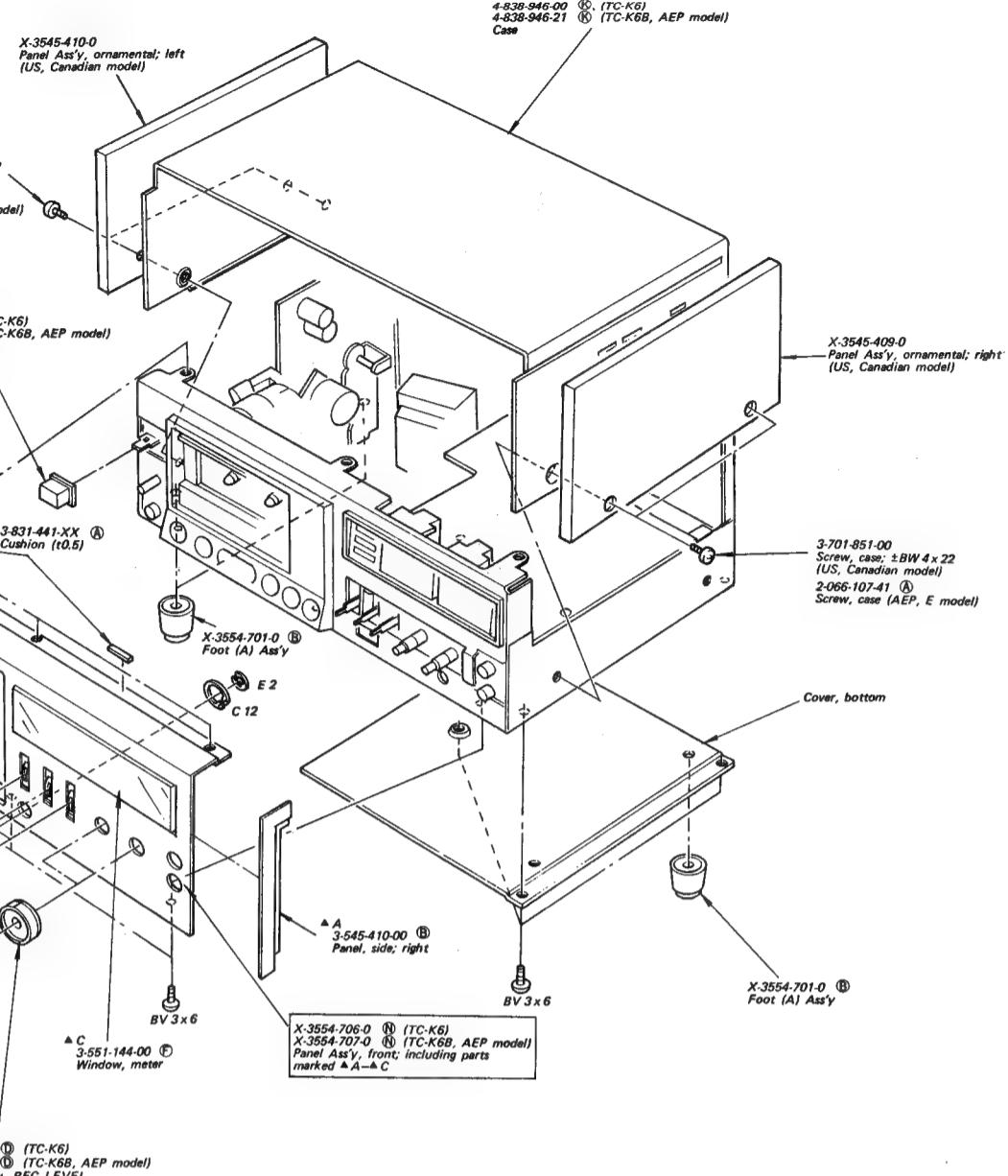
- Items with no part number and/or no description are not stocked because they are seldom required for routine service.
- All screws are Phillips (cross recess) type unless otherwise noted.
(-) = slotted head
- Circled letters (Ⓐ to Ⓛ) are applicable to European models only.

1

2

3

4



A

B

C

D

E

(2) Note:

- Items with no part number and/or no description are not stocked because they are seldom required for routine service.
- All screws are Phillips (cross recess) type unless otherwise noted.
(-) = slotted head
- Circled letters (Ⓐ to Ⓛ) are applicable to European models only.

1

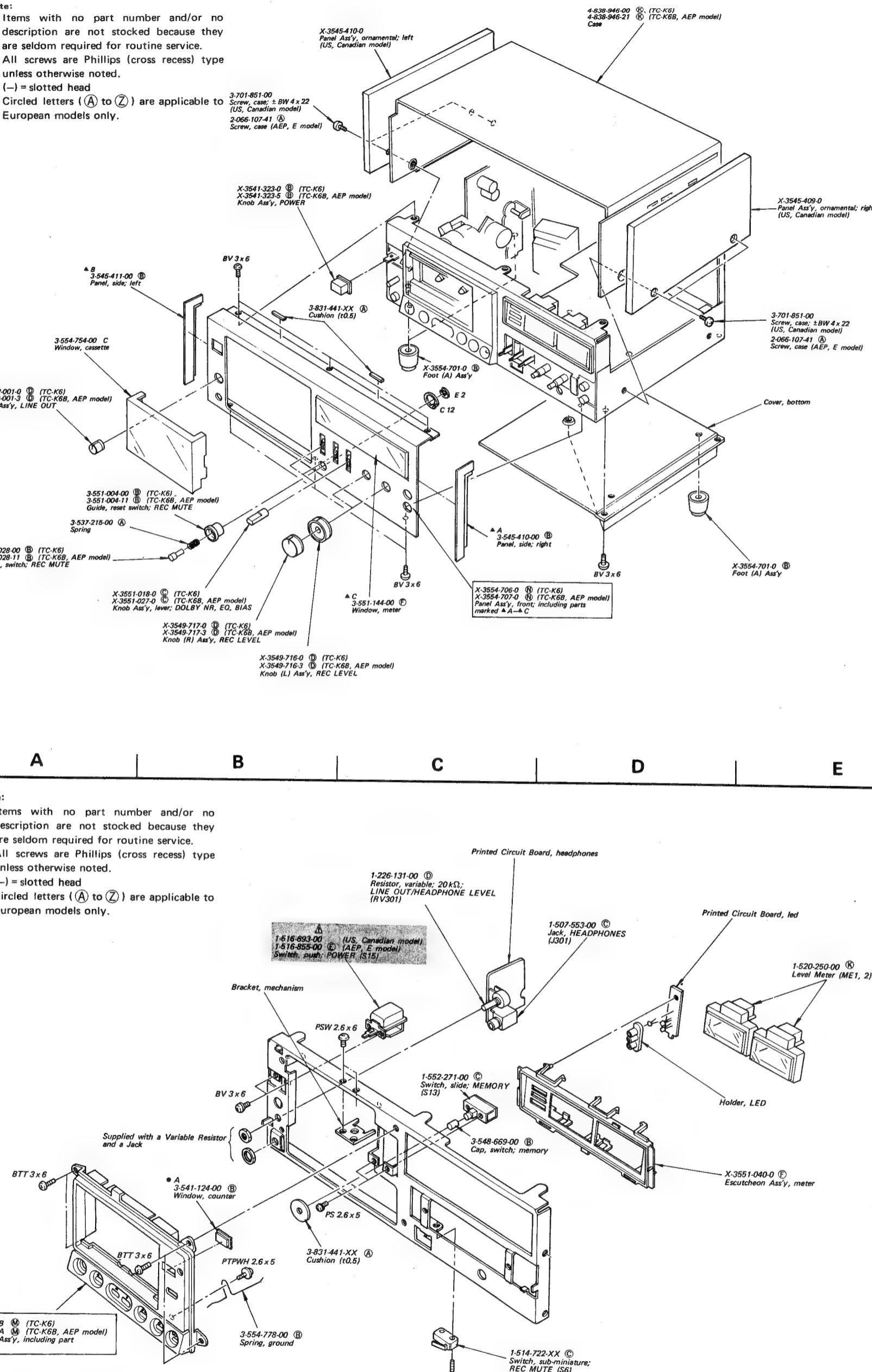
2

3

4

Note: The components identified by shading and Ⓛ mark are critical for safety. Replace only with part number specified.

A-2310-063-B Ⓛ (TC-K6)
A-2310-079-A Ⓛ (TC-K6B, AEP model)
Escutcheon Ass'y, including part marked Ⓛ A



A

B

C

D

E

(3)

Note: The components identified by shading and Ⓛ mark are critical for safety. Replace only with part number specified.

A B C D E

(2) Note:

- Items with no part number and/or no description are not stocked because they are seldom required for routine service.
- All screws are Phillips (cross recess) type unless otherwise noted.
- (-) = slotted head
- Circled letters (Ⓐ to Ⓛ) are applicable to European models only.

1

2

3

4

Note: The components identified by shading and  mark are critical for safety. Replace only with part number specified.

(3)

Note: The components identified by shading and  mark are critical for safety. Replace only with part number specified.

1

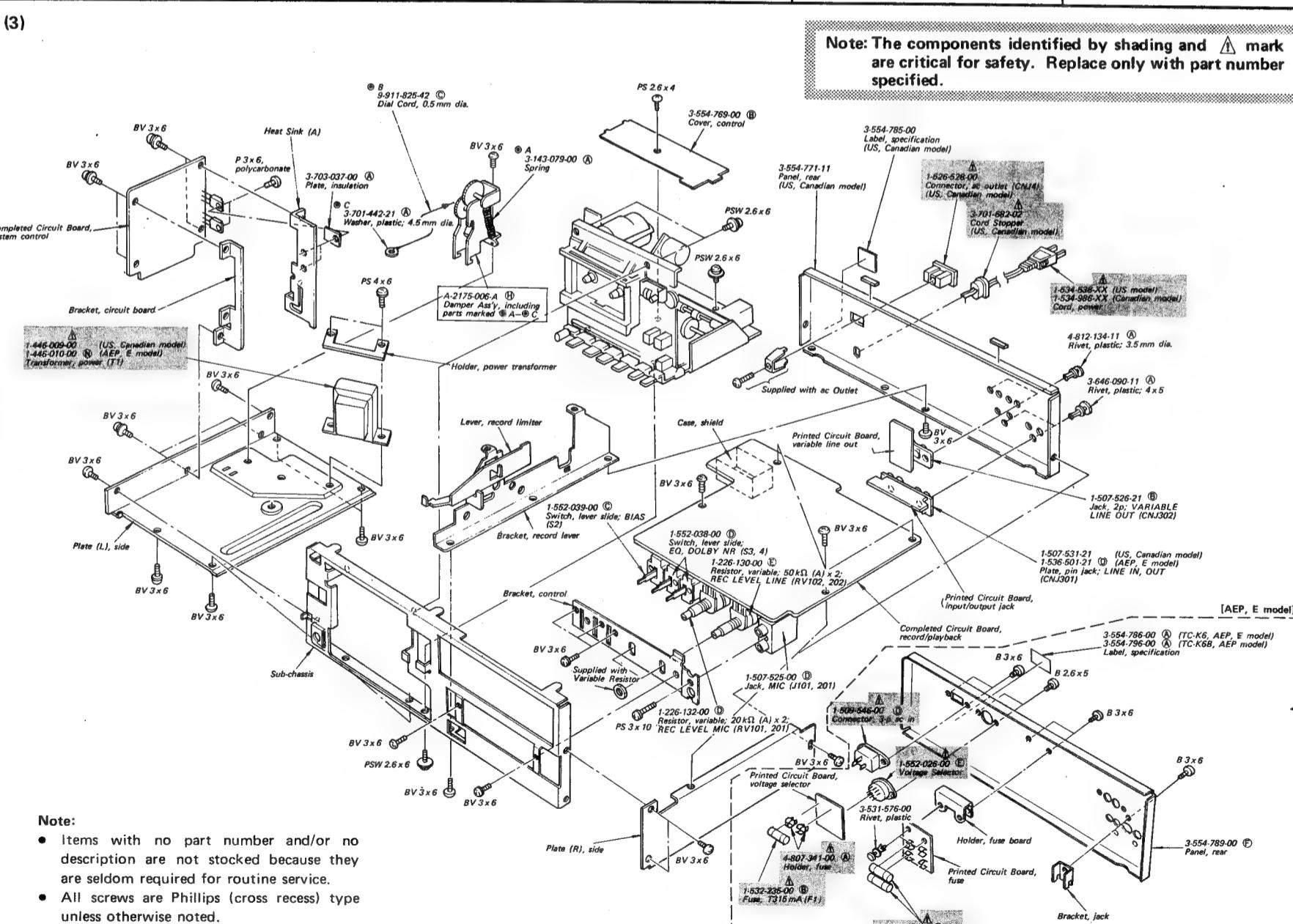
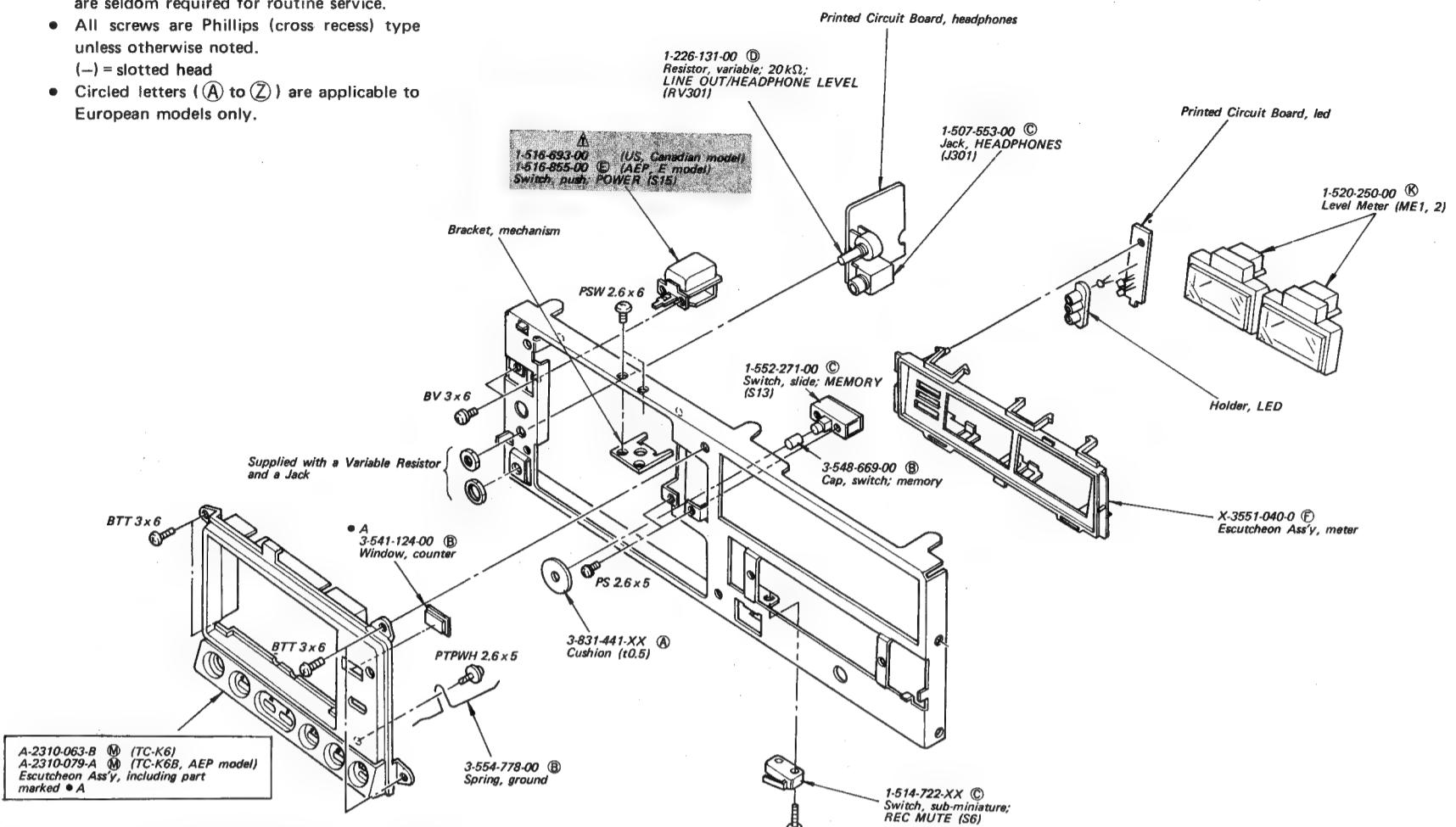
2

3

4

Note:

- Items with no part number and/or no description are not stocked because they are seldom required for routine service.
- All screws are Phillips (cross recess) type unless otherwise noted.
- (-) = slotted head
- Circled letters (Ⓐ to Ⓛ) are applicable to European models only.



A

B

C

D

E

(4) Note:

- Items with no part number and/or no description are not stocked because they are seldom required for routine service.
- All screws are Phillips (cross recess) type unless otherwise noted.
- (-) = slotted head
- (□□T) shows the number of coils in spring.
- Circled letters (Ⓐ to Ⓛ) are applicable to European models only.

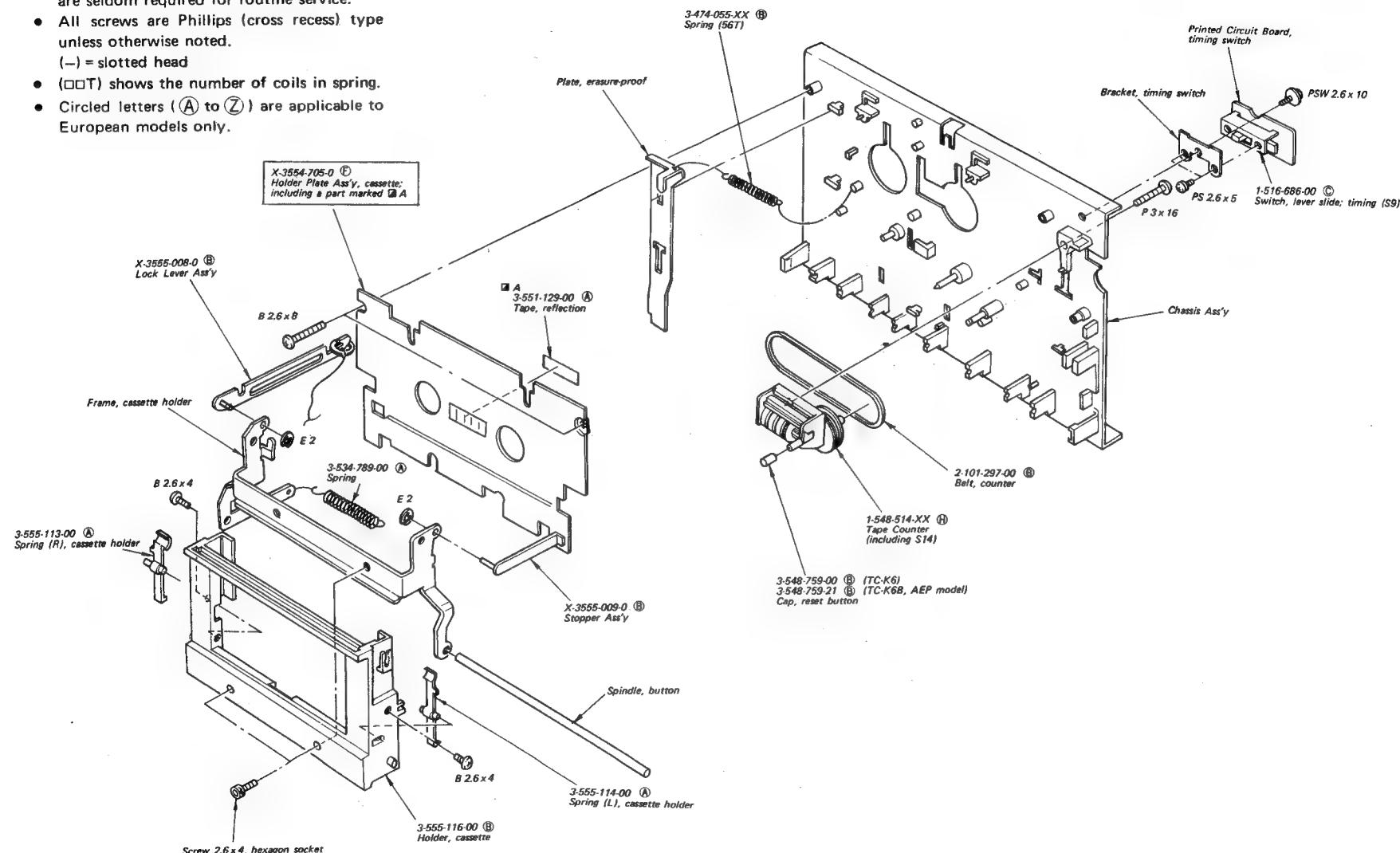
1

2

3

4

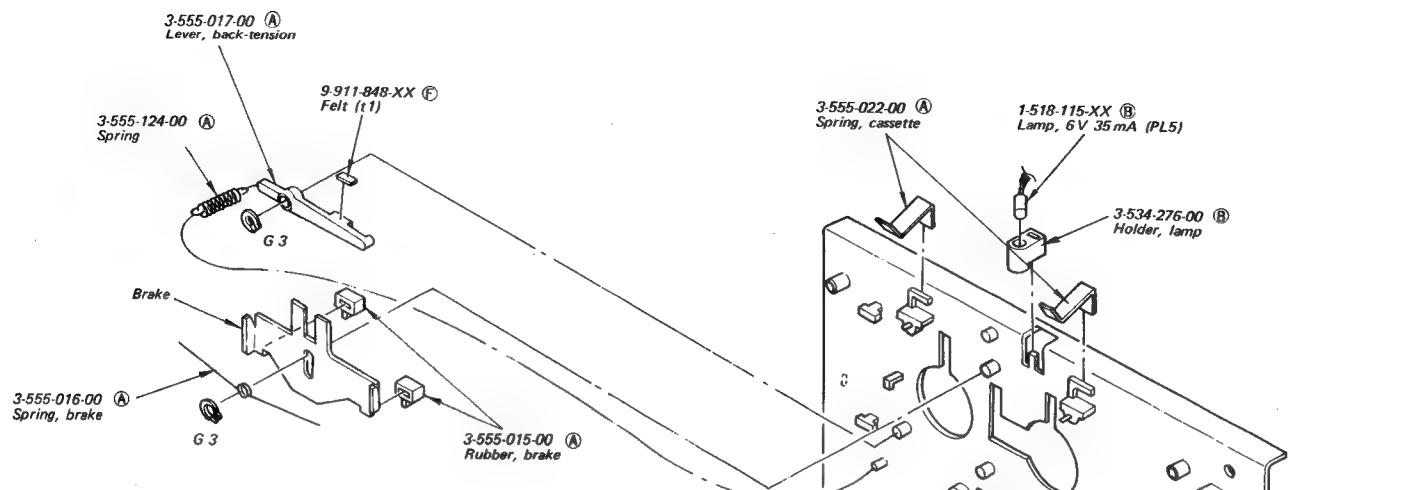
- 37 -



A B C D E

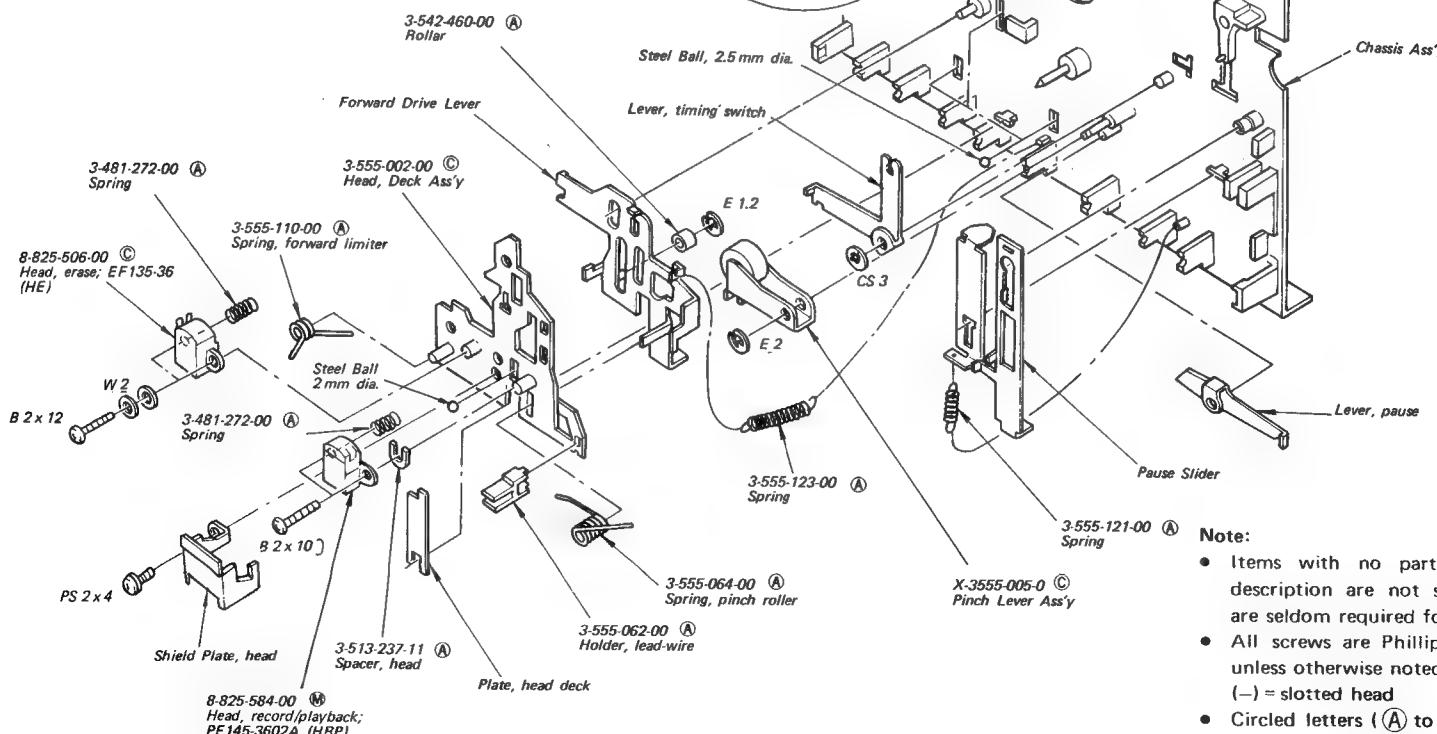
(5)

1



2

- 38 -

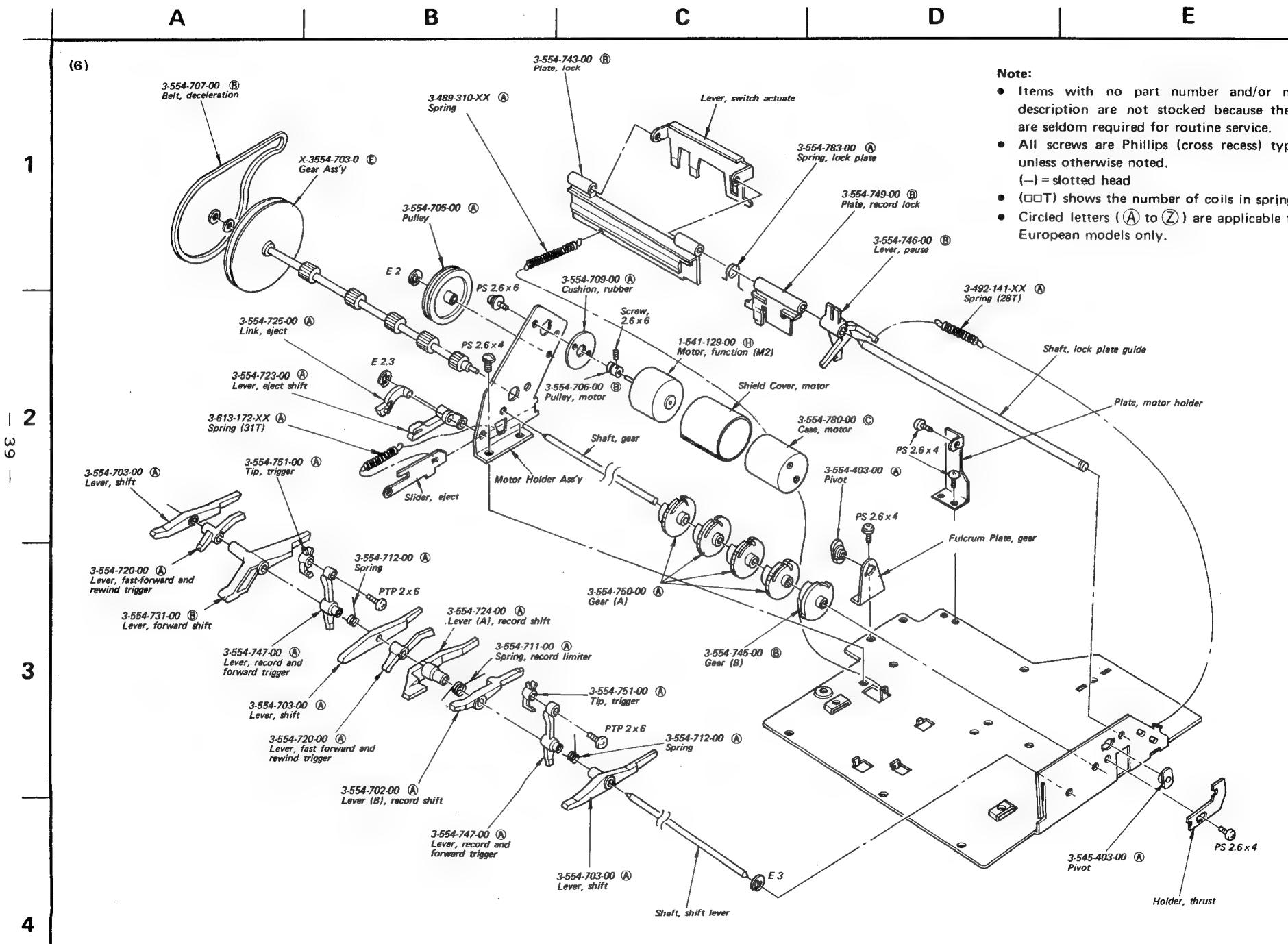


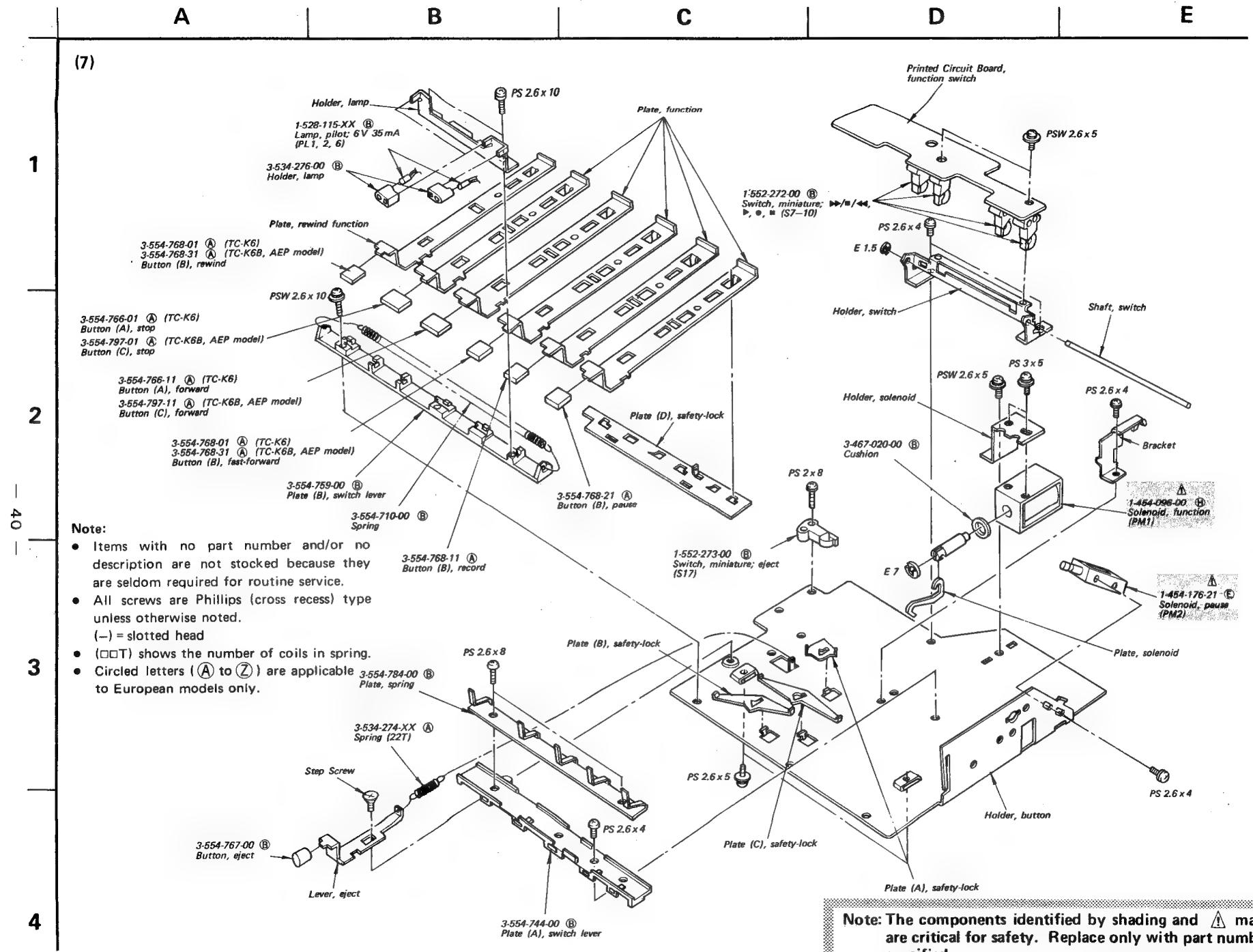
3

4

Note:

- Items with no part number and/or no description are not stocked because they are seldom required for routine service.
- All screws are Phillips (cross recess) type unless otherwise noted.
(-) = slotted head
- Circled letters (A) to (Z) are applicable to European models only.





Note: The components identified by shading and mark are critical for safety. Replace only with part number specified.

A

B

C

D

E

(8) Note:

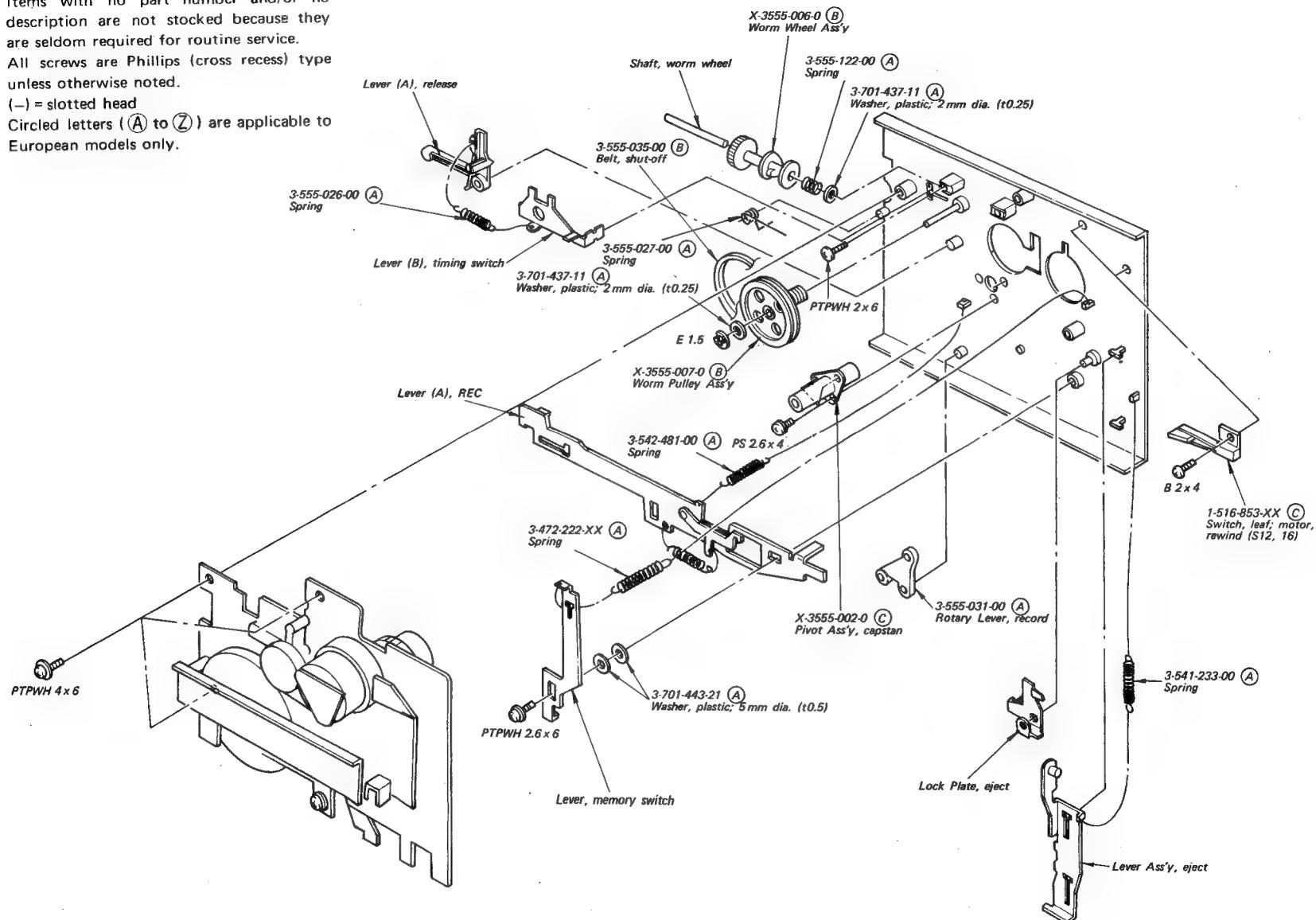
- Items with no part number and/or no description are not stocked because they are seldom required for routine service.
- All screws are Phillips (cross recess) type unless otherwise noted.
- (-) = slotted head
- Circled letters (Ⓐ to Ⓛ) are applicable to European models only.

1

2

3

4



A

B

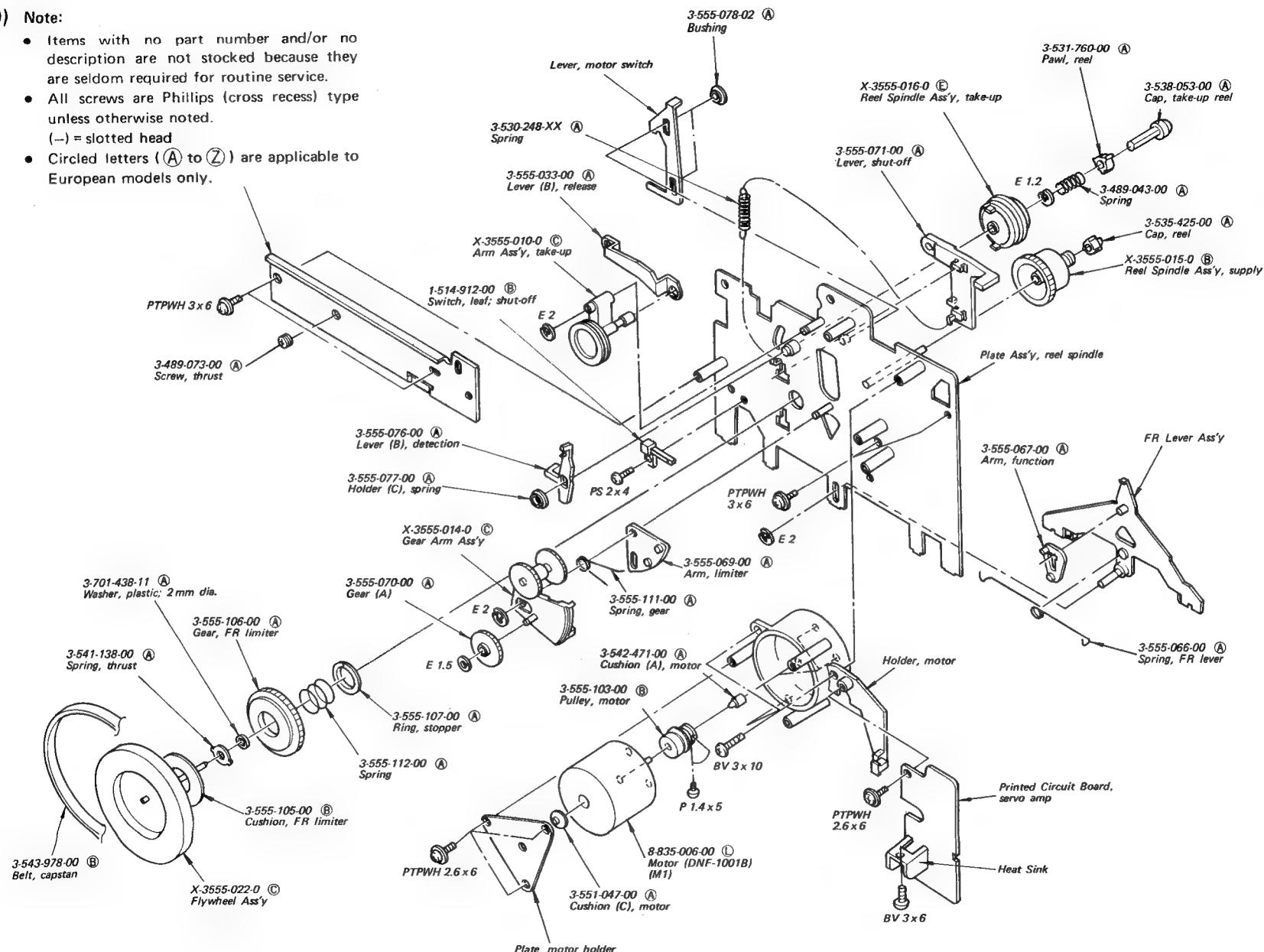
C

D

E

(9) Note:

- Items with no part number and/or no description are not stocked because they are seldom required for routine service.
- All screws are Phillips (cross recess) type unless otherwise noted.
(-) = slotted head
- Circled letters (Ⓐ to Ⓛ) are applicable to European models only.



SECTION 6

ELECTRICAL PARTS LIST

- Circled letters (A to Z) are applicable to European models only.

<u>Ref. No.</u>	<u>Part No.</u>	<u>Description</u>	<u>Ref. No.</u>	<u>Part No.</u>	<u>Description</u>
			Q621	(B) 2SC634A	
			⇒ Q1001	(D) 2SC1061	
				IC	
		SEMICONDUCTORS	⇒ IC1001	(F) CX065A	
		Transistors			Diodes
Q101-105	(B) 2SC1345				
⇒ Q106	(B) 2SC634A		D301,302	(B) 1S1555	
Q107	(B) 2SC1345		D303	(B) 1T22AM	
⇒ Q108-110	(B) 2SC634A		⇒ D304	(B) 1S1555	
Q111	(B) 2SC1345				
⇒ Q112	(C) 2SA678		D401,402	(B) 1S1555	
⇒ Q113-116	(B) 2SC634A		D403	(B) 1T22AM	
			⇒ D404	(B) 1S1555	
Q201-205	(B) 2SC1345		⇒ D501,502	(B) 1S1555	
⇒ Q206	(B) 2SC634A		D503-505	(C) SLP24B	
Q207	(B) 2SC1345		⇒ D506	(B) 1S1555	
⇒ Q208-210	(B) 2SC634A				
Q211	(B) 2SC1345		⇒ D601-616	(B) 1S1555	
⇒ Q212	(C) 2SA678		⇒ D617	(B) EQB01-12Z	
⇒ Q213	(B) 2SC634A		⇒ D618,619	△ (B) 10E2	
⇒ Q224-226	(B) 2SC634A		⇒ D620,621	(B) 1S1555	
			⇒ D622	(B) EQB01-08	
⇒ Q301-305	(B) 2SC634A		⇒ D623	(B) 10E2	
⇒ Q401-405	(B) 2SC634A		⇒ D624,626	△ (B) 10E2 (US, Canadian model)	
⇒ Q501	(C) 2SC1475		⇒ D625,627	△ (B) 10E2	
⇒ Q502-508	(B) 2SC634A		⇒ D628,629	(B) 10E2	
			⇒ D630,631	(B) 1S1555	
Q601,602	(B) 2SC634A			COILS	
Q603	(C) 2SC1475				
Q604-606	(B) 2SC634A				
Q607	(C) 2SC1475				
Q608,609	(B) 2SC634A				
Q610	(C) 2SA678				
Q611-616	(B) 2SC634A				
Q617	(C) 2SC1475				
Q618	(B) 2SC634A				
Q619,620	(C) 2SC1173				
					All coils are microinductors unless otherwise noted.
L101,201	1-407-212-XX	(B) 33µH			
L102,202	1-407-240-00	(B) Inductor, variable; 19 kHz F			
L103,203	1-407-203-XX	(B) 5.6 mH			
L104,204	1-407-199-XX	(B) 2.7 mH			
L105,205	1-407-198-XX	(B) 2.2 mH			
L501,502	1-407-211-XX	(B) 27µH			

⇒: Due to standardization, interchangeable replacements may be substituted for parts specified in the diagrams.

Note: The components identified by shading and  mark are critical for safety. Replace only with part number specified.

- Circled letters (Ⓐ to Ⓛ) are applicable to European models only.

<u>Ref. No.</u>	<u>Part No.</u>	<u>Description</u>	<u>Ref. No.</u>	<u>Part No.</u>	<u>Description</u>
TRANSFORMERS					
T1	Ⓐ 1-446-009-00	Power (US, Canadian model)	C127,227	1-102-959-11	Ⓐ 22p
T1	Ⓐ 1-446-010-00	Ⓑ Power (AEP, E model)	C128,228	1-102-959-11	Ⓐ 22p
T301,401	1-427-424-00	Ⓒ Output	C129,229	1-121-398-11	Ⓐ 10 25V elect
T501	1-433-132-00	Ⓒ OSC	C131,231	1-121-450-11	Ⓐ 2.2 50V elect
CAPACITORS					
<p>All capacitors are in μF and ceramic unless otherwise noted. 50WV or less are not indicated except for electrolytics. pF = $\mu\mu$F, elect = electrolytic</p>					
C101,201	1-121-916-11	Ⓑ 10 16V elect	C132, 232	1-121-416-11	Ⓑ 100 25V elect
C102,202	1-102-074-11	Ⓐ 0.001	C134,234	1-121-651-11	Ⓐ 10 16V elect
C103,203	1-121-915-11	Ⓐ 4.7 25V elect	C135,235	1-121-398-11	Ⓐ 10 25V elect
C104,204			C136,236	1-121-395-11	Ⓐ 4.7 25V elect
C105,205	1-121-416-11	Ⓑ 100 25V elect	C137,237	1-108-251-12	Ⓑ 0.1 mylar
C106,206	1-121-409-11	Ⓐ 47 16V elect	C138,238	1-121-392-11	Ⓐ 3.3 25V elect
C107,207	1-101-888-11	Ⓐ 68p	C139,239	1-121-391-11	Ⓐ 1 50V elect
C108,208	1-108-567-12	Ⓐ 0.0033 mylar	C140,240	1-121-651-11	Ⓐ 10 16V elect
C109,209	1-108-569-12	Ⓑ 0.0039 mylar	C141,241	1-108-587-12	Ⓐ 0.022 mylar
C110,210	1-108-563-11	Ⓑ 0.0022 mylar	C142,242	1-108-589-12	Ⓑ 0.027 mylar
C111,211	1-121-410-11	Ⓑ 47 25V elect	C143,243	1-108-362-12	Ⓑ 0.082 mylar
C112,212	1-102-820-11	Ⓐ 330p	C144,244	1-108-591-12	Ⓑ 0.033 mylar
C113,213	1-102-108-11	Ⓐ 150p	C145,245	1-108-361-12	Ⓐ 0.056 mylar
C114,214	1-121-915-11	Ⓐ 4.7 25V elect	C146,246	1-121-391-11	Ⓐ 1 50V elect
C115,215	1-102-820-11	Ⓐ 330p	C147,247	1-102-074-11	Ⓐ 0.001
C116,216	1-101-888-11	Ⓐ 68p	C301,401	1-108-581-12	Ⓑ 0.012 mylar
C117,217	1-121-651-11	Ⓐ 10 16V elect	C302,402	1-108-579-12	Ⓐ 0.01 mylar
C118,218	1-102-106-11	Ⓐ 100p	C303,403	1-108-597-12	Ⓑ 0.0056 mylar
C119,219	1-108-593-12	Ⓑ 0.039 mylar	C304,404	1-108-573-12	Ⓐ 0.0056 mylar
C120,220	1-123-050-11	Ⓑ 2.2 50V elect	C305,405	1-102-959-11	Ⓐ 22p
C121,221	1-108-571-12	Ⓐ 0.0047 mylar	C306,406	1-121-651-11	Ⓐ 10 16V elect
C122,222	1-121-404-11	Ⓐ 33 25V elect	C307,407	1-108-567-12	Ⓐ 0.0033 mylar
C123,223	1-102-114-11	Ⓐ 470p	C308,408	1-121-986-11	Ⓐ 2.2 50V elect
C124,224	1-121-911-11	Ⓑ 0.47 50V elect	C309,409	1-108-234-12	Ⓐ 0.0047 mylar
C125,225	1-121-414-11	Ⓐ 100 10V elect	C310,410	1-121-960-11	Ⓐ 3.3 25V elect
C126,226	1-121-352-11	Ⓐ 47 10V elect	C311,411	1-108-246-12	Ⓐ 0.047 mylar
			C312,412	1-121-392-11	Ⓐ 3.3 25V elect
			C501	1-108-579-12	Ⓐ 0.01 mylar
			C502	1-108-585-12	Ⓑ 0.018 mylar
			C503	1-131-218-11	Ⓑ 3.3 35V tantalum
			C504,505	1-141-010-XX	Ⓑ Trimmer
			C506	1-129-710-11	Ⓐ 0.0047 630V film
			C507,508	1-107-206-11	Ⓐ 15p 500V silvered mica
			C509,510	1-107-037-11	Ⓐ 82p 500V silvered mica
			C511,512	1-107-091-11	Ⓐ 180p silvered mica

Note: The components identified by shading and Ⓛ mark are critical for safety. Replace only with part number specified.

- Circled letters (Ⓐ to Ⓛ) are applicable to European models only.

Ref. No.	Part No.	Description	
C513	1-121-395-11	Ⓐ 4.7	25V elect
C514	1-121-391-11	Ⓐ 1	50V elect
C515	1-102-074-11	Ⓐ 0.001	
C516	1-121-450-11	Ⓐ 2.2	50V elect
C601	1-121-395-11	Ⓐ 4.7	25V elect
C602	1-121-391-11	Ⓐ 1	50V elect
C603	1-121-409-11	Ⓐ 47	16V elect
C604	1-121-450-11	Ⓐ 2.2	50V elect
C605	1-121-395-11	Ⓐ 4.7	25V elect
C606	1-121-662-11	Ⓐ 22	35V elect
C607,608	1-121-391-11	Ⓐ 1	50V elect
C609	1-121-392-11	Ⓐ 3.3	25V elect
C610	1-161-025-11	Ⓑ 0.1	(boundary layer)
C611	1-161-019-11	Ⓐ 0.033	(boundary layer)
C612,613	1-161-025-11	Ⓑ 0.1	(boundary layer)
C614	1-161-019-11	Ⓐ 0.033	(boundary layer)
C615	1-121-726-11	Ⓐ 0.47	50V elect
C616	1-121-398-11	Ⓐ 10	25V elect
C617	1-121-479-11	Ⓐ 22	16V elect
C618	1-121-416-11	Ⓑ 100	25V elect
C619	1-121-361-11	Ⓑ 470	35V elect
C620	1-121-361-11	Ⓑ 470	35V elect
C621	1-121-392-11	Ⓐ 3.3	25V elect
C622	1-121-660-11	Ⓑ 2200	16V elect
C623	1-121-479-11	Ⓐ 22	16V elect
C624	1-121-245-11	Ⓑ 1000	16V elect
C625	1-121-398-11	Ⓐ 10	25V elect
C626	1-121-245-11	Ⓑ 1000	16V elect
C627	1-121-392-11	Ⓐ 3.3	25V elect
C1003	1-130-134-11	Ⓑ 0.08	100V film

RESISTORS

All resistors are in ohms. Common 1/4W carbon resistors are omitted.

Refer to the list on page 21 for their part numbers.

R109,209 Ⓛ 1-244-869-11 Ⓛ 680 1/4W carbon
R157,257 Ⓛ 1-244-869-11 Ⓛ 680 1/4W carbon

Ref. No.	Part No.	Description	
R516	⚠ 1-217-402-11	Ⓑ 180	1/4W fusible
R649	⚠ 1-244-873-11	Ⓐ 1k	1/4W carbon
R650	⚠ 1-246-413-11	Ⓐ 3.3	1/4W carbon
R654	⚠ 1-246-411-11	Ⓐ 2.7	1/4W carbon
R655	⚠ 1-206-481-11	Ⓐ 56	2W metal oxide
R656	1-244-867-11	Ⓐ 560	1/2W carbon
R657	1-217-418-11	Ⓐ 0.47	1/2W fusible
RV101,201	1-226-132-00	Ⓓ 20k (A), variable; REC LEVEL MIC	
RV102,202	1-226-130-00	Ⓔ 50k (A), variable; REC LEVEL LINE	
RV103,203	1-224-645-XX	Ⓑ 10k, adjustable; playback level	
RV104,204	1-224-646-XX	Ⓑ 22k, adjustable; record level	
RV105,205	1-224-644-XX	Ⓑ 4.7, adjustable; level meter (L), (R)	
RV301	1-226-131-00	Ⓓ 20k, variable; LINE OUT/ HEADPHONE LEVEL	
RV1001	1-224-491-00	Ⓑ 22k, adjustable; tape speed	
SWITCHES			
S1	1-516-263-00	Ⓓ Slide, record/playback	
S2	1-552-039-00	Ⓒ Lever Slide, BIAS	
S3,4	1-552-038-00	Ⓓ Lever Slide (S3: EQ, S4: DOLBY NR)	
S5	1-516-686-00	Ⓒ Lever Slide, timing	
S6	1-514-722-XX	Ⓒ Sub-miniature, REC MUTE	
S7-10	1-552-272-00	Ⓑ Miniature, ▶▶/■/◀◀, ▶, ●, ■	
S11	1-514-912-00	Ⓑ Leaf, shut-off	
S12	1-516-853-XX	Ⓒ Leaf, rewind	
S13	1-552-271-00	Ⓒ Slide, MEMORY	
S15	⚠ 1-516-693-00	Push, POWER (US, Canadian model)	
S15	⚠ 1-516-855-00	Ⓔ Push, POWER (AEP, E model)	
S16	1-516-853-XX	Ⓒ Leaf, motor	
S17	1-552-273-00	Ⓑ Miniature, eject	

Note: The components identified by shading and Ⓛ mark are critical for safety. Replace only with part number specified.

- Circled letters (Ⓐ to Ⓛ) are applicable to European models only.

Ref. No. Part No. Description

JACKS AND CONNECTORS

J101,201	1-507-525-00	Ⓐ Jack, MIC
J301	1-507-553-00	Ⓒ Jack, HEADPHONES
CNJ4	△ 1-526-528-00	Socket, ac outlet (US, Canadian model)
CNJ301	1-507-531-21	Plate, pin jack; LINE IN, OUT (US, Canadian model)
CNJ301	1-536-501-21	Ⓓ Plate, pin jack; LINE IN, OUT, REC/PB (AEP, E model)
CNJ302	1-507-526-21	Ⓑ Jack, 2p; VARIABLE LINE OUT

MISCELLANEOUS

CP1	△ 1-231-057-31	Ⓑ CR Encapsulated Component (AEP, E model)
CP1	△ 1-231-326-11	CR Encapsulated Component (US model)
CP1	△ 1-231-341-21	CR Encapsulated Component (Canadian model)
F1	△ 1-532-235-00	Ⓑ Fuse, T315 mA (AEP, E model)
F2,3	△ 1-532-285-00	Ⓑ Fuse, T1.25A (AEP, E model)
HE	8-825-506-00	Ⓒ Head, erase EF135-36
HRP	8-825-584-00	Ⓜ Head, record/playback; PF145-3602A
M1	8-835-006-00	Ⓛ Motor, capstan; DNF-1001B
M2	1-541-129-00	Ⓜ Motor, function
ME1,2	1-520-250-00	Ⓜ Level Meter
PL1,2,5,6	1-518-115-XX	Ⓑ Lamp, pilot 6V 35 mA
PM1	△ 1-454-096-00	Ⓜ Solenoid, function
PM2	△ 1-454-176-21	Ⓜ Solenoid, pause
	△ 1-509-546-00	Ⓓ Connector, 3-p ac in (AEP, E model)
	△ 1-534-538-XX	Cord, power (US model)
	△ 1-534-986-XX	Cord, power (Canadian model)
	1-548-514-XX	Ⓜ Tape Counter
	△ 1-552-026-00	Ⓔ Voltage Selector (AEP, E model)

ACCESSORIES & PACKING MATERIALS

<u>Part No.</u>	<u>Description</u>
X-3549-745-0	Ⓒ Cushion Ass'y
X-3701-105-0	Ⓐ Tips Ass'y, head cleaning
1-534-049-31	Ⓕ Cord, connector; RK-74H
1-534-754-00	△ Ⓟ Cord, power; parallel-blade plug (E model)
1-551-216-11	△ Ⓟ Cord, power; euro-plug (E model)
3-429-126-00	Ⓑ Bag, plastic
3-554-790-00	Ⓕ Carton (TC-K6B, AEP model)
3-554-791-00	Carton (US, Canadian model)
3-554-792-00	Ⓕ Carton (AEP, E model)
3-701-630-00	Ⓐ Bag, plastic
3-770-365-11	Ⓕ Manual, instruction (AEP, E model)
3-770-365-21	Manual, instruction (US model)
3-770-365-21	Manual, instruction (Canadian model)
3-794-172-31	Warranty Card (Canadian model)
3-793-956-31	Leaflet (AEP, E model)
3-794-060-11	Ⓑ Leaflet (AEP, E model)
4-837-003-00	Ⓒ Bag, plastic (TC-K6B, AEP model)

Note: The components identified by shading and **△** mark are critical for safety. Replace only with part number specified.

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9-954-628-01

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